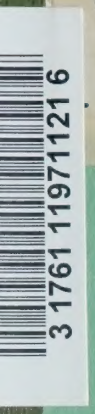

REPRINT OF

HEALTH REFERENCE BOOK

FOR

DOMINION-PROVINCIAL CONFERENCE

ON RECONSTRUCTION

AUGUST, 1945

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CONTENTS

PART I

PUBLIC HEALTH

1. FOREWORD

The following reference material has been compiled under the direction of the Committee on Health Insurance of which Dr. G. B. Chisholm was Chairman and J. T. Marshall, Secretary. The terms of reference of the Committee requested the preparation of descriptive, factual material giving a picture of the existing division of responsibilities and activities between Dominion and the provinces in the various fields of health services.

The cooperation of the provincial Health Departments in compiling this material is gratefully acknowledged.

All totals for Canada are exclusive of Yukon and The Northwest Territories.

2. DIVISION OF RESPONSIBILITIES

Jurisdiction respecting public health is based upon the British North America Act, 1867, and all health activities are conducted within the limitations of the statutory jurisdiction laid down by that Act. To the Dominion Government was assigned jurisdiction over "quarantine and the establishment and maintenance of marine hospitals" (Sec. 91, ss. 11), and to the provinces "the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the provinces, other than marine hospitals" (Sec. 92, ss. 7). But the residuary power for public health has been generally accepted as being in the province by virtue of provincial jurisdiction over "property and civil rights in the province" and "generally all matters of a merely local or private nature in the province" (Sec. 92, ss. 13 and 16).

3. GENERAL PUBLIC HEALTH SERVICES

Morbidity statistics are not sufficiently complete to use as an index of the effectiveness of public health measures but mortality statistics for certain diseases although available for the whole of Canada only since 1921, give some indication of the results achieved. The examples following show the improvement which has taken place in recent years and indicate the need for continuous and expanded public health activities.

TYPHOID FEVER

The decrease in the mortality rate from typhoid fever in Canada was from 10 per 100,000 in 1921 to one per 100,000 in 1943. The following table shows the disastrous effect upon the mortality trend of a milk borne epidemic in one city in 1927.

TABLE 1.—MORTALITY RATES—TYPHOID FEVER
CANADA, 1921-1943

(SOURCE: Vital Statistics Branch, Dominion Bureau of Statistics)

Year	Rate per 100,000	Year	Rate per 100,000
1921	10·1	1933	2·7
1922	8·4	1934	2·7
1923	9·0	1935	2·5
1924	6·6	1936	2·3
1925	5·9	1937	3·0
1926	4·9	1938	1·9
1927	11·6	1939	1·6
1928	4·8	1940	2·0
1929	4·7	1941	1·4
1930	4·4	1942	0·9
1931	4·1	1943	1·0
1932	3·2		

INFANT AND MATERNAL MORTALITY

In recent years a great part of the energy designed to effect a decline in the general death rate has been directed at infant mortality and with a large measure of success. That Dominion, provincial and municipal health authorities, together with private welfare agencies, have all taken part in the struggle to reduce infant mortality is reflected in the figures for the period 1921 to 1943, which show a fairly constant improvement each year. In fact, any fluctuations in the general downward trend have been caused by the presence of epidemic diseases. In 1921 the infant death rate for Canada was 102 per 1,000 live births, while figures for 1943 show the lowest rate since the registration area was established, viz. 54 per 1,000 live births. In other words, over 13,000 young Canadians were added to the population of Canada in 1943 who, under conditions prevailing in 1921, would have died before their first birthday.

Maternal mortality (Chart 1) increased in the first part of the period, but from 1936 to 1943 decreased 50 per cent from the rate of 5.6 to 2.8 per thousand live births. The infant and maternal mortality rates are influenced by provisions for protecting the milk and water supplies, and also by the amount of infant and maternal welfare services, and possibly by the increased hospitalization of the mothers. In 1926, 18 per cent of live births took place in institutions, and in 1943, 55 per cent. In three of the provinces more than 80 per

cent were in institutions in 1943, and in one province, British Columbia, 92 per cent. The percentages are shown in Table 2.

TABLE 2.—LIVE BIRTHS IN INSTITUTIONS IN CANADA BY PROVINCES, 1926 AND 1943

(SOURCE: Vital Statistics Branch, Dominion Bureau of Statistics)

	Per cent in Institutions		Per cent Increase
	1926	1943	
CANADA	17·8	54·7	207·3
Prince Edward Island	2·7	47·2	1,648·1
Nova Scotia	7·3	56·7	676·7
New Brunswick	8·5	40·8	380·0
Quebec	4·8	17·1	256·3
Ontario	24·9	77·1	209·6
Manitoba	31·3	81·2	159·4
Saskatchewan	22·5	75·2	234·2
Alberta	33·5	82·9	147·5
British Columbia	48·3	92·1	90·7

Chart No. 2 shows the infant mortality in monthly age periods and demonstrates very strikingly the proportion of deaths which occur during the first month, as compared to the other eleven months of the first year. A comparison with infant mortality and maternal mortality rates in certain other countries (see Charts 3 and 4) shows that Canadian rates have not reached as low figures as those attained by some of the other countries.

COMMUNICABLE DISEASES

The benefits derived from the use of specific serums and vaccines are exemplified in the reduction in both morbidity and mortality from smallpox and diphtheria. From 1921 to 1933 the mortality rate from smallpox was less than one per 100,000 and from 1934 to 1939 was less than 0·1 per 100,000, and there were no deaths in the years 1940 to 1943. In 1924 (first year figures available) there were 2,769 cases reported, and in 1943 only 6 cases. Diphtheria mortality has decreased 91 per cent from a rate of 24 per 100,000 in 1921 to 2·4 in 1943. In 1924 there were 9,039 cases reported; in 1943, 2,804.

The mortality from the four communicable diseases of childhood taken together (diphtheria, scarlet fever, measles and whooping cough) shows a reduction of 83 per cent between 1926 and 1943 (see Chart 5). The rates shown in this chart are for the whole of Canada and thus show the average reduction for all provinces. In some of the provinces the reduction (for example, in diphtheria) has been even more striking. A defection in one province not only spoils the record of Canada as a whole, but prolongs and aggravates the hazards faced by the other provinces.

THE INCREASING LENGTH OF LIFE

The recently calculated life tables for Canada, 1940-1942, show an expectation of life at birth of slightly less than 63 years for males and over 66 years for females. These represent a considerable increase over the expectation shown in the tables calculated for the three years about the 1931 Census, which show for males less than 60 years expectation of life at birth and for females less than 62 years. This increase of over 3 years in the expectation for males and of 4½ years for females is quite striking, but some caution should be exercised in interpreting it as part of a long-term trend.

Since the expectation at birth was not calculated previous to 1931, it is not possible to make comparisons for the country as a whole over an extended period of time. Comparing 1921 with 1931 for the 1921 Registration Area (all the provinces except Quebec) the expectation at age 5 increased by less than 1½ years for males and less than 2½ years for females. Between 1931 and 1941 in the nine provinces the expectation at age 5 increased by one year for males and about two years for females.

The Canadian rate of increase during the thirties is generally in line with that shown for the United States and the United Kingdom during the longer period for which life tables have been constructed in those countries. In the United Kingdom the first life tables were published for the period 1838-1854 and the expectation of life at birth at that time was, roughly, 40 years for males and 42 years for females. By 1930-1932 this had increased to 59 and 63 years, respectively, making an average increase per decade of approximately 2 years for both males and females. During the course of the present century, however, i.e., from 1901 to 1931, a marked acceleration can be noted, with an average decennial increase of 3½ years in the case of both sexes.

A similar record is presented by the United States life tables calculated since the turn of the century. The life tables for white males 1900-1902 showed 48 years expectation at birth, and that for 1942, 63 years. This increase of 15 years over four decades—an average decennial increase of just under 4 years for white males—corresponds to an increase of about 17 years for white females, or over 4 years per decade.

The decline in deaths has been most important in infancy, youth and early middle years in all three countries, but later age groups have not fared so well. It is a striking fact that the expectation of life of persons 60 years of age and over has not measurably increased during the period for which figures are available in any of the three mentioned countries.

THE EFFECT OF CHANGING AGE DISTRIBUTION

The saving of the lives of children and young adults has radically altered the age-distribution of the general population and among the consequences of this alteration are certain new problems in disease prevention and treatment. More than one-third of all the deaths are due to diseases of the heart and arteries; the number of deaths recorded as cancer has increased; the problems of chronic ailments and the care of the aged require greater consideration.

NEED FOR CONTINUED SERVICES

The mortality rates for certain diseases have diminished remarkably in the whole of Canada, but there is no room for complacency or lessening of public health efforts. The irreducible minimum has not been reached. If rates were available for individual areas, the record

would not be satisfactory everywhere. Further improvement is necessary in rural sanitation and the achievements reached by some areas should hold for all Canada. Even in the areas where the rates are low, constant vigilance should be maintained. In any locality a break in the control of water or milk may mean a return of the typhoid fever rates that obtained twenty years ago, and smallpox of the most virulent type may spread among the unvaccinated.

DOMINION ACTIVITIES

Department of National Health and Welfare

From Confederation until the year 1872 Dominion health activities were under the control of the Department of Agriculture. Later, the administration was divided among the Departments of Marine and Fisheries, Agriculture and Inland Revenue. Operating under the Conservation Commission was the National Council on Health, which advised the Federal and Provincial Governments on matters relating to public health. Various National organizations interested in health matters passed resolutions and memorialized the Government for the creation of a Department of Health, and on numerous occasions a motion was introduced into the House of Commons "for a select standing committee on the subject of vital statistics and public health". In 1919 the Federal Department of Health was created by Act of Parliament, and in 1928 this Department was merged with the Department of Soldiers' Civil Re-establishment to create the Department of Pensions and National Health. In 1944 the latter department was dissolved and the new Department of National Health and Welfare was created.

Divisional Activities

National health activities carried on through the following divisions include:

1. *Food and Drugs*

   Administration of the Food and Drugs Act and Regulations.

2. *Proprietary or Patent Medicine*

   The control of proprietary or patent medicines.

3. *Quarantine, Immigration Medical and Sick Mariners' Services*

   Prohibiting the entry of diseased and defective immigrants—quarantine control of all vessels entering Canada—treatment of sick mariners at the various ports in Canada.

4. *Child and Maternal Hygiene*

   Conservation of child life and the promotion of child and maternal welfare.

5. *Industrial Hygiene*

   Developing the health and welfare of industrial workers, carrying on research and providing leadership.

6. *Public Health Engineering*

   Investigation of water supplies on common carriers engaged in international and interprovincial trade—carrying out duties as directed by the International Joint Commission in respect of the pollution of boundary waters—sanitary surveys of shellfish areas.

7. *Information Services*

   Public health education by means of radio, literature, posters, etc.

8. *Narcotic Drugs*

   Supervision of the importation, manufacture and sale of narcotic drugs.

9. *Medical Investigation (Conservation of Health of Civil Servants)*

   Supervision of sick leave and medical examination of civil servants.

10. *Laboratory of Hygiene*

    Control of the importation, manufacture and sale of biological preparations and certain potent drugs.

11. *Nutrition Services*

    Studies and research in the field of nutrition.

12. *Venereal Disease Control*

    Promotion of the national programme of venereal disease control—coordinating the civilian venereal disease control measures with those of the armed forces.

13. *International Health*

    (i) Signatory to the International Convention of Paris, 1926—Implementing quarantine regulations and provisions of the Convention and signatory to these treaties as amended under authority of United Nations Relief and Rehabilitation Administration, that is, International Sanitary Convention 1944, and International Sanitary Convention for Aerial Navigation, 1944.

    (ii) Membership in the "Office International d'Hygiene publique"—collection and dissemination of information regarding infectious diseases;

    (iii) Membership in the International Union against Cancer and Venereal Diseases;

    (iv) Participation in the International Agreement of Brussels—treatment of seamen suffering from venereal diseases;

    (v) Representation on the Opium Advisory Committee of the League of Nations—control of the importation, manufacture and sale of narcotics;

    (vi) Custodian and distributing centre of biological, vitamin and hormone standards for the League of Nations; and

    (vii) Agreement with the United States Public Health Service—exportation of shellfish and the supervision of water supplies on vessels plying the Great Lakes and on common carriers in international service.

Activities of other Dominion Departments

In addition to the activities of the Department of National Health and Welfare, other Dominion departments are concerned with public health matters. For example—

(1) Department of Agriculture—inspection of meat, meat products and canned foods for export or interprovincial trade—supervision of production of milk exported to other countries—exclusion

and control of domestic animals suffering from communicable diseases—manufacture, sale and importation of concentrated milk products.

(2) Department of Mines and Resources—town planning and sanitation within the National Parks—supervision of the health of Indians and Eskimos and maintenance of and assistance to hospitals for their care.

(3) National Research Council—medical research committees.

(4) Dominion Bureau of Statistics—compilation, tabulation and publication of vital and public health statistics.

THE DOMINION COUNCIL OF HEALTH

This body is responsible for correlating and coordinating provincial and Dominion public health activities. It comprises the Chief Medical Officer of Health of each of the provinces, one scientific adviser, and four lay persons representing, respectively, labour, agriculture, and women's urban and rural organizations. The Deputy Minister of National Health is chairman.

THE VITAL STATISTICS COUNCIL FOR CANADA

The Council was established to facilitate cooperation between Dominion and provincial governments with respect to the use of vital records and statistics, and to ensure the creation and maintenance of a system that is adequate to meet increasing demands both for Dominion and provincial purposes. The Dominion Statistician is the Chairman and the Council comprises one representative for each province, one for Yukon and the Northwest Territories and the Chiefs of Vital Statistics and Census Branches in the Dominion Bureau of Statistics.

PROVINCIAL DEPARTMENTS OF HEALTH

Provincial health activities are conducted by Departments or Boards of Health. Five provinces, Prince Edward Island, Nova Scotia, Ontario, Saskatchewan and Alberta have separate Departments of Health or Public Health. In New Brunswick the work is carried out through the Department of Health and Social Services; in Quebec through the Department of Health and Social Welfare; in Manitoba through the Department of Health and Public Welfare; and in British Columbia under the Provincial Secretary. Most of the provinces have a Provincial Board of Health, or an equivalent, to act in an advisory capacity, but in British Columbia and Alberta the Board has a more positive role with executive and administrative authority. All provincial departments have supervision over municipal health organizations.

Provincial and Local Health Services

The Provincial Departments of Health are responsible for supervising and maintaining the health of the people in each province. For the purpose of administration the departments are divided into a number of branches or divisions. In general terms the activities of such branches are as follows:

1. *Vital Statistics*

The collection, publication and distribution of statistics of births, marriages and deaths—issuing certificates—supervision of division offices and preparation of regulations to maintain a system of registration.

2. *Communicable Disease Control*

Regulations for control and prevention of communicable diseases—immunization programme—distribution of biological products.

3. *Public Health Engineering*

Inspection and supervision of water and sewage treatment plants; milk distributing plants; summer and tourist camps.

4. *Industrial Hygiene*

Regulations regarding health hazards in industry.

5. *Tuberculosis Prevention*

Education—operation of stationary and travelling clinics—provision of consultative services—supervision of sanatoria and rehabilitation.

6. *Laboratories*

Bacteriological examination of water, milk and food samples—examination of specimens for diagnosis of communicable diseases—branch laboratories—laboratory service to other divisions.

7. *Venereal Disease Control*

Operation of clinics—provision of consultative services for physicians and health officers.

8. *Cancer*

Operation and supervision of clinics for diagnosis, treatment and research in cancer.

9. *Maternal and Child Hygiene*

Supervision of local programmes to provide adequate medical, nursing, prenatal, obstetrical, and postnatal services, and infant, preschool and school health services.

10. *Mental Hygiene*

Supervision of clinics and provision of diagnostic services—supervision of mental hospitals.

11. *Dental Service*

Educational work and service in outlying areas through travelling clinics.

12. *Public Health Nursing*

Coordinating the nursing programme in local health services—encouraging the employment, by local areas, of public health nurses and supervision of the work.

13. *Health Units*

Provision of adequate local health services—responsibility for all generalized public health services in local areas.

TABLE 3.—SHOWING THE DIVISIONAL ACTIVITIES OF THE PROVINCIAL DEPARTMENTS OF HEALTH

(Source: PROVINCIAL DEPARTMENTS OF HEALTH)

Prince Edward Island

Lieutenant-Governor in Council
Minister of Health
Deputy Minister of Health
Vital Statistics
Communicable Disease Control
Tuberculosis Control
Venereal Disease Control
Laboratories
Sanitation
Public Health Nursing
Public Health Education
Dental Hygiene
Sanatorium Commission
  Provincial Sanatorium
Department of Public Works
  Provincial Hospital for the Insane

Nova Scotia

Minister of Health
Deputy Minister
Central Administration
Vital Statistics and Epidemiology
Laboratories
Venereal Diseases
Physical Fitness and Nutrition
Sanitary Engineering and Sanitation
Health Units
  Acute Communicable Disease, Tuberculosis and Venereal Diseases
  Sanitation
  Public Health Nursing
  Maternal, Child and School Hygiene
Provincial Hospitals
  Cancer Clinic
  Victoria General Hospital
  Nova Scotia Sanatorium
  Nova Scotia Hospital
  Inspection of Local Hospitals

New Brunswick

Minister of Health
Chief Medical Officer and Registrar
Vital Statistics
Communicable Diseases and Tuberculosis
Venereal Diseases
Laboratories
Sanitation
Public Health Nursing
Public Health Education
School Medical Inspection
Health Districts
  District Medical Officers of Health
  Sub-District Boards of Health

Quebec

Minister of Health and Social Welfare
Deputy Minister
Assistant Deputy Minister
Administration
Demography
Epidemiology
Venereal Diseases
Laboratories
Sanitary Engineering
Public Health Education
Industrial Hygiene
Mental Hygiene—Insane Asylums
Nutrition
Publicity
Tuberculosis Clinics, Dispensaries, etc.
Director of Services
Public Health Units and Districts
Legal Adviser
Medical Service to Settlers
Hospital Administration

Ontario

Minister of Health
Deputy Minister & Chief Medical Officer of Health
Assistant to Deputy Minister
Assistant to Chief Medical Officer
Business Office
Tuberculosis Prevention
Venereal Disease Control
Laboratories
Sanitary Engineering
Public Health Nursing
Dental Division
Public Health Administration
Industrial Hygiene
Mental Hygiene and Ontario Hospitals
Nurses' Registration
Library
Division of Maternal and Child Hygiene
Public Hospitals

Manitoba

Minister of Health and Public Welfare
Deputy Minister
Board of Health
Director of Health
Section of Administration
  General Administration
  Statistics and Records
  Laboratories
  Health and Welfare Education
  Administrative Research
Section of Environmental Sanitation
  Public Health Engineering
  Industrial Hygiene
  Food and Milk Control
Section of Preventive Medical Service
  Disease Control (including venereal diseases)
  Maternal and Child Health
  Public Health Nursing
Section of Extension of Health Service
  Includes Hospitalization
Section of Local Health and Welfare Service
  Advisory Field Staff
  Local Health Departments
Division of Psychiatry
  Psychiatry
  Mental Institutions
  Mental Hygiene

Saskatchewan

Minister of Public Health
Health Service Planning Commission
Council of Public Health
Deputy Minister
Cancer Commission
Administration
Vital Statistics
Communicable Disease
Venereal Disease Control
Laboratories
Sanitation
Public Health Nursing
Health Education
Physical Fitness and Recreation
Medical Services
Hospital Administration
Mental Hygiene
Nutritionist

Alberta

Minister of Health
Provincial Board of Health
Deputy Minister of Health
General Administration
Vital Statistics
Communicable Diseases
Tuberculosis—Clinics, Sanatoria and Surveys
Social Hygiene
Provincial Laboratory
Sanitary Engineering
Public Health Nursing, Maternal and Child Hygiene
Public Health Education
Dental Hygiene
Hospital Inspection
Mental Health
Entomology—Surveys
Cancer Services
Institutions
  Mental Hospitals and Training Schools
  Central Alberta Sanatorium

British Columbia

Lieutenant-Governor in Council
Provincial Board of Health
Provincial Secretary
Provincial Health Officer
Bureau of Administration
Division of Vital Statistics
Division of Tuberculosis Control
Division of Venereal Disease Control
Division of Laboratories
Division of Public Health Engineering
Division of Public Health Education
Bureau of Local Health Services
  Public Health Nursing
  Local Health Officers
  Health Units
  School Medical Services
  Preventive Dentistry
Hospital Administration
Provincial Mental Hospitals

Divisional activities of each provincial Department of Health are shown in Table 3.

Some Special Features in Provincial Organization

Prince Edward Island—The island can be considered a full-time health unit, in the sense that the health services for the whole island are administered by the Provincial Department. The city of Charlottetown has a Food Inspector and a Sanitary officer.

Nova Scotia—The province is divided into five Health Districts and a qualified medical health officer is in charge of each—with this organization it has been possible to more completely correlate and standardize work throughout the province. A unique development was the opening in 1942 of a "Kenny" treatment clinic for infantile paralysis.

New Brunswick—The organization for the province is centralized. Under the Minister, the Department is directed by the Chief Medical officer who is also Registrar-General of Vital Statistics. The staff consists of a Director of Laboratories, eleven full-time Medical Health officers, a Director of Public Health Nursing Service and, in addition, a part-time Director of Venereal Disease Clinics. The province assumes all hospital care for poliomyelitis patients.

Quebec—The Department of Health and Social Welfare deals with the administration of all matters concerning health, preventive medicine and social welfare.

Since 1926 the system known as "County Sanitary Units", (Health Units) has been in operation. The purpose of the system is to provide a regular full-time public health service for each county or group of two or three adjoining counties that are included in the scheme. The Sanitary officers of the old districts supervise the few counties not organized into units. Many municipalities, such as Montreal and Quebec, have their own Health Bureaux.

Ontario—The new Division of Public Health Administration is dealing with the setting up of larger units of public health administration, particularly County Health Units. Many county councils are studying the county health plan and it is expected that units will be operating in many sections of the province within a few months. There is no fixed provincial contribution towards the cost of these units, but the province will pay a percentage of the cost. Cities such as Toronto, Hamilton, Windsor and Ottawa have their own health departments. Vital statistics is the responsibility of the Registrar-General's Department.

Manitoba—A new over-riding Division known as the section of Local Health and Welfare Services has been set up. This Division cuts across all the activities of the Department and is responsible for the control of local part-time health officers, the establishment and supervision of local health units, and consultative services to local or municipal Health Departments throughout the province.

Saskatchewan—A Health Services Planning Commission is charged with the task of preparing plans for providing all types of health services and facilities. It is also an advisory and consultive body to local regions wishing to provide such services for their residents.

A Cancer Commission has established consultive diagnostic and treatment clinics for cancer at Regina and Saskatoon. The cancer services, including surgery at either clinic, are given at the expense of the province.

Free treatment for poliomyelitis is available at Saskatoon and Regina.

Alberta—A Division of Public Health Entomology conducts surveys on Rocky Mountain spotted fever and sylvatic plague.

Free treatment in special hospitals is provided for persons suffering from poliomyelitis.

Provision has been made whereby patients, referred to the diagnostic clinics by their own physicians, are treated free of charge, if, after examination, they are found to require X-ray or radium therapy or surgery.

Free hospitalization for maternity patients for a period of twelve days is provided.

In sparsely populated, outlying areas, Provincial District Nurses provide a diversified medical and public health service. These nurses are required to have special qualifications.

British Columbia—The Provincial Health Services are organized as a Branch of the Provincial Secretary's Department.

Different types of local health services have been developed in the province. These include City Health Departments, Health Units, public health nursing services and areas where part-time health officers and school medical inspectors are appointed from the practising physicians.

The consolidation of the local health services in the Greater Vancouver area was particularly significant because it was the first of its kind in North America. A Metropolitan Health Board provides a unified health service for the municipalities of Vancouver, North Vancouver City, North Vancouver District, Richmond, Burnaby, and for the University of British Columbia area.

LOCAL HEALTH SERVICES

Generally speaking, the various provincial public health Acts require the local municipality to appoint a local board of health, a medical officer of health, and such number of sanitary inspectors as is required to enforce the Public Health Act and regulations.

The local board of health is required to control nuisances—which are defined in very broad terms—and to carry out the communicable disease regulations. Most of the other commonly accepted activities of the modern public health department are not due to legal requirements but represent the normal growth of public activities within comparatively recent years.

The larger centres of population in Canada have full-time public health departments. Basically, the programmes of all these departments are much alike. Without going into detail, the scope of the programme can be indicated by a listing of activities.

1. Vital Statistics and Records
2. Communicable Disease Control
3. Food and Milk Control
4. Sanitation and Housing
5. Health Education
6. Maternal, Infant and Child Hygiene (Including Dental Hygiene)

7. Adult Hygiene (including Industrial Hygiene)
8. Laboratory Services
9. School Health Services

The extent to which these services are developed depends upon the budget available. Some of the cities provide their school health services through the Department of Health, others through the Board of Education. The public health nurses participate in many of the local health services.

Complete full-time health services are lacking in many of the smaller towns and rural areas. Public health authorities maintain that this deficiency could be met by the establishment of local health units. A health unit is a modern health department staffed by full-time trained public health personnel, responsible for all the generalized public health services in the area they serve.

Sanitation measures, such as the maintenance and operation of sewers and sewage disposal systems, the collection of garbage and the cleaning of streets, are required in the larger urban centres and in more or less degree in the smaller ones, to protect and maintain the health of the residents. The cost of these services falls upon the local taxpayers and while accurate figures of expenditure on this account are not available, an estimate of $11 million based on the experience in larger cities would appear to be reasonable. This is a field in which much remains to be done in Canada. Many of the medium sized cities have inadequate sewage disposal methods. For instance in the conference on Planning and Development held in Toronto in May, 1944, Professor Alan Coventry stated that in 550 centres of population in Ontario with sewerage systems 385 discharge sewage into adjacent rivers.

COSTS OF PUBLIC HEALTH SERVICES

The expenditures of all governments for general public health services for 1943, exclusive of the care of tuberculous and mental patients in institutions, is shown in Table 4. This table does not include the expenditures for hospital care in General Public (Acute Disease) Hospitals.

The item of $216,000 shown in the Dominion column covers the Venereal Disease Grants, $194,000, and Vital Statistics transcripts, $22,000, and is as shown in the Dominion Public Accounts for the fiscal year ended March 31, 1944. These do not coincide with corresponding items in the provincial public accounts due to differences in fiscal year ends and varying accounting practices.

The item of $1,054,000 shown in the Dominion column covers the expenditures made by the Health Branch of the Department of Pensions and National Health, excluding Venereal Disease Grants, hospital charges for sick mariners, $174,000 in 1943-44, special grants to welfare organizations, $68,000, and expenditure for physical fitness, $250,000.

Expenditures are incurred by other Dominion Departments on activities of a health nature, for instance:—

(*a*) The Administration of Animal Contagious Diseases Act and Meat and Canned Foods Act, including compensation for slaughtered animals amounted to $2,194,000; and

(*b*) The Dominion Bureau of Statistics
  (i) supplied forms to the provinces for the registration of births, marriages and deaths, $13,800;

TABLE 4.—GENERAL PUBLIC HEALTH EXPENDITURE[1] IN CANADA, 1943

(SOURCE: Dominion-Provincial Conference—Public Finance Statistics)

(thousands of dollars)

	Source of Funds				Total expenditure	Per Capita (dollars)
	Province	Municipalities[2]	Dominion	Other		
Prince Edward Island	40	4	2	—	46	0·51
Nova Scotia	302	96	12	1	411	0·68
New Brunswick	144	59	9	—	212	0·46
Quebec	1,737	1,078	80	20	2,915	0·84
Ontario	2,212	1,756	65	3	4,036	1·03
Manitoba	355	390	11	10	766	1·06
Saskatchewan	381	220	13	1	615	0·73
Alberta	378	149	12	—	539	0·68
British Columbia	377	248	12	—	637	0·71
	5,926	4,000	216	35	10,177	0·86
Dominion	.....	.....	1,054	.....	1,054	.....
Grand Total	5,926	4,000	1,270	35	11,231	0·95

[1] Excluding amounts for hospital and medical care so far as this was possible from information available.

[2] Amounts are only approximate and do not include expenditure for sanitation.

(ii) paid to the provinces at a rate of 4 cents per transcript, $22,000;

(iii) Salaries of clerks to prepare the main statistical tables for the Provincial Vital Statistics Reports $44,300;

(iv) Rentals for machinery, cost of stationery, etc. $17,500.

A total of $97,500 which does not include the cost of the "Vital Statistics of Canada" at $6,100.

There are other public health services supplied by the Dominion Departments the costs of which are unknown and cannot be estimated, such as:—

(*a*) Under the provisions of the Statistics Act (Canada) the provinces are granted "franking privileges" on

(i) all registrations of births, marriages, and deaths,

(ii) all notifications of tuberculosis and venereal diseases,

(iii) reports of cancer incidence, and

(iv) weekly routine reporting of communicable diseases.

(*b*) Department of Mines and Resources—the public health costs of town planning and sanitation in the national parks.

(*c*) Department of Mines and Resources, (Indian Affairs Branch)—the costs of strictly public health services to Indians and Eskimos, as distinct from other medical services.

SOURCES:

Provincial Departments of Health.

Department of National Health and Welfare.

Study of the Distribution of Medical Care and Public Health Services in Canada—The National Committee for Mental Hygiene (Canada), 1939.

Dominion Bureau of Statistics.

4. TUBERCULOSIS

Thirty thousand Canadians died of tuberculosis in the years 1939 to 1943. It is the seventh cause of death for all ages, first cause for the age group between 15 and 45.

Tuberculosis mortality in Canada decreased steadily up to 1939, when it was approximately 75 per cent lower than it had been in 1900. Accurate figures for the earlier year are not available for Canada as a whole, but on the basis of a study of deaths recorded for Ontario and Quebec, the death rate in 1900 appears to have been at least 200 per 100,000. By 1939 it had fallen to 52·8.

A comparison of tuberculosis death rates in Canada and certain other countries is shown in Chart 6. The Canadian rate is lower than that in Great Britain, but higher than those of the United States, Australia and New Zealand. Like Great Britain, but unlike the other countries shown, Canada has had an increased mortality rate since the outbreak of war. Since 1921 the rate in Canada has declined less sharply than that in the United States.

Mortality rates as published by the Dominion Bureau of Statistics for the years 1928 to 1943 are shown in Table 5.

TABLE 5—DEATH RATES PER 100,000 POPULATION FROM TUBERCULOSIS BY PROVINCES, 1928-43

(SOURCE: Vital Statistics Branch, Dominion Bureau of Statistics)

—	Average 1928–32	Average 1933–37	Average 1938–42	1943
CANADA—				
Total deaths	76·4	61·7	52·6	52·3
Indians[1]	658·6	737·3	700·2	757·7
Exclusive of Indians	70·5	55·0	46·2	45·5
Prince Edward Island—				
Total deaths	99·1	76·5	66·9	46·2
Indians[1]	334·4	419·8	454·5	—
Exclusive of Indians	98·3	75·6	65·8	46·3
Nova Scotia—				
Total deaths	105·1	88·6	72·4	68·7
Indians[1]	450·6	349·5	344·1	646·7
Exclusive of Indians	103·8	87·6	71·4	66·6
New Brunswick—				
Total deaths	91·4	80·2	69·3	48·6
Indians[1]	573·4	491·8	488·2	468·3
Exclusive of Indians	89·5	78·6	67·5	46·8
Quebec—				
Total deaths	114·7	92·1	80·4	82·2
Indians[1]	157·6	248·5	321·3	301·8
Exclusive of Indians	114·5	91·4	79·4	81·3
Ontario—				
Total deaths	51·7	37·7	29·4	28·1
Indians[1]	448·7	356·8	380·9	414·7
Exclusive of Indians	48·4	35·0	26·5	25·1
Manitoba—				
Total deaths	61·8	58·6	48·2	52·9
Indians[1]	810·2	1,338·6	1,084·2	1,421·6
Exclusive of Indians	48·3	35·1	27·5	24·9
Saskatchewan—				
Total deaths	39·9	31·1	28·7	29·7
Indians[1]	829·5	775·4	833·4	752·7
Exclusive of Indians	30·4	21·7	17·0	18·3
Alberta—				
Total deaths	55·0	46·0	37·8	37·1
Indians[1]	1,480·4	1,545·1	1,293·0	1,249·7
Exclusive of Indians	35·0	24·6	18·5	18·2
British Columbia—				
Total deaths	91·8	77·1	67·9	68·1
Indians[1]	704·6	833·5	786·2	856·8
Exclusive of Indians	68·3	51·8	45·9	46·2

[1] Halfbreeds and non-ward Indians included with Indians.

Death rates were highest in the Maritime Provinces, Quebec and British Columbia, lowest in the Prairie Provinces and Ontario.

Mortality from tuberculosis has decreased in all provinces, especially in the case of the non-Indian population. However, this reduction has not been uniformly great in all provinces.

Statistics for 1928 and 1943 clearly indicate the change. Table 6 shows Canadian and provincial death rates for these years, with the percentage of reduction or increase, for the total population, population excluding Indians, and Indians.

Reduction in deaths, exclusive of Indians, has been least in Quebec, Nova Scotia and British Columbia, and these provinces have the highest death rates.

TABLE 6—TUBERCULOSIS MORTALITY RATES BY PROVINCES, 1928 AND 1943

(Source: Vital Statistics Branch, Dominion Bureau of Statistics)

	Total Deaths			Deaths exclusive of Indians			Deaths of Indians			
	1928	1943	Per cent reduction	1928	1943	Per cent reduction	1928	1943	Per cent	
									Reduction	Increase
CANADA	81·0	52·3	35·43	75·6	45·5	39·81	614·8	757·7		23·24
Prince Edward Island	113·6	46·2	59·33	114·0	46·3	59·39	—	—		
Nova Scotia	112·2	68·7	38·77	111·1	66·6	40·05	437·9	646·7		47·68
New Brunswick	101·7	48·6	52·21	100·2	46·8	53·29	498·1	468·3	5·98	
Quebec	119·7	82·2	31·33	119·5	81·3	31·97	166·8	301·8		80·94
Ontario	56·4	28·1	50·18	52·9	25·1	52·55	486·8	414·7	14·81	
Manitoba	61·0	52·9	13·28	50·7	24·9	50·89	633·9	1,421·6		124·26
Saskatchewan	44·8	29·7	33·71	35·2	18·3	48·01	837·3	752·7	10·10	
Alberta	51·8	37·1	28·38	37·0	18·2	50·81	1,123·5	1,249·7		11·23
British Columbia	100·2	68·1	32·04	75·1	46·2	38·48	736·1	856·8		16·40

The Indian rates are of interest because little change has taken place in the general situation. The Indian death rate has continued to increase in the country, as a whole. Three provinces show some reduction, the most significant being in Ontario and Saskatchewan, where the preventive programmes have been in operation longest, and where Indian deaths have been reduced 15 and 10 per cent respectively.

Both the actual death rates and the extent to which they have been reduced in the various provinces appear to be related to the availability of treatment facilities, both in terms of sanatorium accommodation and provisions for meeting the costs of care.

SANATORIUM REQUIREMENTS

The distribution of facilities for the hospitalization of tuberculous patients, and the extent of care provided is shown in Table 7.

On the basis of the recognized standard minimum requirement of three beds per death, Canada is still short of sanatorium accommodation to treat all tuberculous patients who require care.

This is shown in Table 8, which compares available beds and standard requirements for white and Indian groups.

Greatly increased expenditure is necessary to meet Canadian requirements. This is particularly true in those provinces which have a high death rate and where reduction in tuberculosis mortality has been relatively slight. In these provinces, proportionately greater increases are required to bring the number of sanatorium beds up to minimum standards.

The need for increased sanatorium accommodation may be illustrated by the province of Quebec, where the average death rate for 1938-1942 was 80·4, the reduction in non-Indian deaths between 1928 and 1943 was only 32 per cent, and 4,280 sanatorium beds are required. This contrasts with the situation in Ontario, where the minimum rate of three beds per death has been obtained, and where tuberculosis mortality, exclusive of Indians, was reduced 53 per cent between 1928 and 1943. Average rate based on all tuberculosis deaths in Ontario in 1938-1942 was only 29·4.

Further indication of the need for increased treatment facilities is found in the relation between deaths attributed to tuberculosis and average sanatorium population. This is shown in Table 9.

The three provinces with the lowest death rates, Saskatchewan, Alberta and Ontario, all show high average sanatorium population compared with average number of deaths, while provinces with high death rates had a relatively smaller number of sanatorium cases compared with tuberculosis deaths.

TABLE 7—TUBERCULOSIS HOSPITALS, BY PROVINCES, 1939 AND 1943

(Source: Institutional Branch, Dominion Bureau of Statistics)

—	1939				1943				Per cent increase			
	Number of hospitals	Bed capacity	Patient days	Daily average population	Number of hospitals	Bed capacity	Patient days	Daily average population	Number of hospitals	Bed capacity	Patient days	Daily average population
CANADA	65	10,160	3,394,975	9,379	79	11,319	3,795,007	10,397	21·5	11·4	11·8	10·9
Prince Edward Island	1	80	24,282	67	1	89	31,427	86	—	11·3	29·4	28·4
Nova Scotia	9	554	181,861	515	10	696	229,132	628	11·1	25·6	26·0	21·9
New Brunswick	3	525	179,883	493	3	548	198,029	542	—	4·4	10·1	9·9
Quebec	22	2,739	865,748	2,464	27	3,347	1,102,437	3,020	22·7	22·2	27·3	22·6
Ontario	13	3,612	1,205,764	3,302	14	3,641	1,226,989	3,361	7·7	0·8	1·8	1·8
Manitoba	5	853	260,943	714	8	888	274,016	751	60·0	4·1	5·0	5·2
Saskatchewan	3	740	296,713	803	4	822	291,478	799	33·3	11·1	−1·8	−0·5
Alberta	4	399	139,136	381	5	430	147,738	405	25·0	7·8	6·2	6·3
British Columbia	5	658	240,645	640	7	858	293,761	805	40·0	30·4	22·1	25·8

TABLE 8—SANATORIUM REQUIREMENTS

(On basis of 3 beds per death)

—	White population				Indian population			
	Deaths 5-year average (1939-43)	Total beds required	Beds available	New beds required	Deaths 5-year average (1939-43)	Total beds required	Beds available	New beds required
CANADA	5,227	15,669	11,287	6,306	775	2,325	719	1,606
Prince Edward Island	55	165	165 [1]	—	1	3	—	54
Nova Scotia	405	1,215	695	520	8	24	—	
New Brunswick	280	840	548	292	9	27	—	
Quebec	2,640	7,920	3,640	4,280	47	141	—	141
Ontario	964	2,892	3,614	450 [2]	114	342	35	307
Manitoba	198	594	795	—	160	480	266 [4]	214
Saskatchewan	152	456	755	—	100	300	60	240
Alberta	153	459	411	300 [3]	146	438	13	425
British Columbia	376	1,128	664	464	190	570	345	225

[1] This includes the new 75-bed unit at Charlottetown, to be opened for use October 1, 1945.

[2] These beds required in northern part of the province where bed ratio is low.

[3] 100 new and 200 replacements.

[4] This includes the new 150-bed hospital at The Pas, which has been taken over by the Dominion from the United States Army. While it is not yet in use for the treatment of tuberculous Indians, its capacity may be deducted from the total of new beds required.

In Ontario the daily average sanatorium population was 3,361, and there was an average of 964 white and 114 Indian deaths. In Quebec the average population in tuberculosis hospitals in 1943 was 3,020, but deaths in that province averaged 2,640 (white) and 47 (Indian).

TABLE 9.—DEATHS FROM TUBERCULOSIS COMPARED WITH AVERAGE SANATORIUM POPULATION

—	Average Deaths, 1939-1943		Daily Average Population, Tuberculosis Hospitals, 1943
	White	Indian	
Prince Edward Island	55	1	86
Nova Scotia	405	8	628
New Brunswick	280	9	542
Quebec	2,640	47	3,020
Ontario	964	114	3,361
Manitoba	198	160	751
Saskatchewan	152	100	799
Alberta	153	146	405
British Columbia	376	190	805

Meeting Costs of Treatment

Opportunity to benefit from sanatorium treatment for tuberculosis may be limited by provisions for meeting the costs of care. If there is no financial obstacle to hinder admission to the sanatorium the patient is most likely to receive prompt and adequate treatment, and his opportunities for rehabilitation enhanced because his family is not impoverished by meeting the costs of protracted illness.

There has been a trend towards free treatment of tuberculosis in Canada, which has increased in importance as experience has shown such provision to be a decisive factor in the more efficient control of the disease. Free treatment has been in effect in Saskatchewan since 1929 and in Alberta since 1935. These provinces, along with Ontario, have the lowest tuberculosis death rates in Canada. More recently free care for tuberculous patients has been provided in Manitoba and New Brunswick, the latter province having initiated its free treatment programme at January 1, 1945.

Costs of Tuberculosis Control

Expenditures on tuberculosis control include those directed towards prevention and those for actual care and treatment of patients in sanatoria.

It is not possible to segregate provincial expenditures on education, diagnostic facilities, observation clinics, rehabilitation and after care. These services are relatively inexpensive and are developing rapidly. Great assistance has been given by voluntary funds, such as the Christmas Seal Fund, in pushing forward mass X-ray surveys. In 1944 half a million people were X-rayed. The discovery of new active cases of tuberculosis has accentuated the need for increased treatment facilities.

Expenditures on the care of patients in tuberculosis hospitals in the various provinces in 1943 are shown in Table 10, together with an analysis of sources of funds.

TABLE 10—EXPENDITURE AND SOURCE OF FUNDS[1] OF TUBERCULOSIS HOSPITALS, 1943

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics, unless otherwise noted)

(thousands of dollars)

—	Total Expenditure	Source of Funds					
		Total	Grants		Dominion payments for patients	Income from paying patients[2]	Donations and miscellaneous
			Provincial	Municipal			
CANADA[3]	8,823	8,734	4,901	1,841	694	751	550
Prince Edward Island	81	82	48	1	—	31	2
Nova Scotia	395	395	130	132	79	52	3
New Brunswick	504	497	197	205[4]	65	26	5
Quebec[5]	1,710	1,681	674	674	42	162	129
Ontario	3,471	3,405	2,326	12	242	426	398
Manitoba	498	449	92	305[6]	15	33	5
Saskatchewan	754	812	273	398	138	1	2
Alberta	414	414	368	—	47	—	—
British Columbia[7]	996	999	793	114	66	20	6

[1] This table shows operating revenue and expenditures only. Capital expenditures shown in provincial Public Accounts for the corresponding fiscal year were: New Brunswick 4·5; Saskatchewan 23·4; Alberta 68·7.

[2] This includes Workmen's Compensation Board payments totalling 44·1 all in the provinces of Ontario and Quebec.

[3] Canadian totals are adjusted. See notes 5 and 7.

[4] Part of this amount was paid to the municipalities out of the provincial Tuberculosis Fund.—(Tobacco Tax)

[5] Municipal payments made through the province have been arbitrarily allocated to the municipalities. The Public Charities Act, under which these payments are made, provides for equal contributions by province and municipality.

[6] Paid in part through the Municipal Commissioner's levy.

[7] Totals adjusted on the basis of provincial public accounts and supplementary material.

Provincial Organization and Arrangements for Treatment

The various provinces have different arrangements for carrying out their programmes of tuberculosis control. Provisions for meeting the costs of care also vary. Provincial organization and arrangements for treatment are summarized briefly in the following:

Prince Edward Island—Treatment of tuberculosis in Prince Edward Island is centralized in the Provincial Sanatorium at Charlottetown, operated under the Provincial Sanatorium Commission. Patients who are able financially to do so are required to pay for treatment, and this constitutes an important source of income for the sanatorium.

Municipalities are not liable for the cost of treatment of indigent residents, the province itself being the unit for financial responsibility. In addition to sanatorium care, extramural treatment of indigent tuberculous patients is provided at provincial expense.

Nova Scotia—The Province of Nova Scotia operates a sanatorium at Kentville, but almost half the treatment of tuberculosis is carried out in local sanatoria or tuberculosis units in general hospitals.

In the provincial sanatorium, patients who are able are required to pay fees amounting to approximately one-third of their maintenance costs, the balance being met by the provincial government. The municipality where a patient has legal residence is responsible for the patient's share in cases of indigency.

In other tuberculosis hospitals or units in Nova Scotia, the province pays a per diem rate of $1 per patient, irrespective of economic status. An additional $1 is payable to the hospitals by municipalities for the care of their residents who are unable to pay.

The city of Halifax operates a tuberculosis hospital without provincial aid in which indigent city patients receive free treatment while others are charged at the rate of $1.50 per day.

New Brunswick—The provincial government assumed full responsibility for the cost of care and treatment of tuberculous patients in New Brunswick from January 1, 1945, so that free care is available to all patients and the municipalities are relieved of financial obligation. The province operates the Jordan Memorial Sanatorium and there are two other sanatoria in the province, one of which is operated by the municipality of the City and County of Saint John.

Previous to the assumption by the province of the cost of tuberculosis care, patients who were able to do so were required to pay a share of the cost and the municipalities were responsible for their residents who were unable to pay. In recent years, however, the province has been assisting the municipalities in meeting their costs by paying them an amount equal to $1 per patient per day out of the Tobacco Tax Fund.

Quebec—The Department of Health and Social Welfare is responsible for the Quebec tuberculosis prevention programme and for the administration of grants to sanatoria.

Tuberculosis prevention is carried out through provincial and local health agencies, provincial grants being made for educational activities, diagnosis and special measures for the protection of children in large cities. Treatment for tuberculous patients is given in hospitals operated under private auspices. Patients who can pay for treatment are required to do so, but upon proof of poverty by the patient, public contributions are made towards the cost of care. Approved sanatoria receive these grants through the Public Charities Fund, one-third of the total cost of the care of needy persons being met by the province, one-third by the municipality where the patient is domiciled and one-third by the sanatorium itself.

Grants vary with the institution and the type of care given. Large hospitals receive a per patient per diem rate of $3 or $4.50 (for a maximum of 50 days) for patients requiring thoracic surgery. Smaller hospitals receive grants of $2.01 per day for each public ward patient.

Ontario—Tuberculosis control activities in Ontario are carried out through provincial and local preventive programmes and through hospitalization in sanatoria administered by private or municipal authorities under the supervision of the Hospitals Branch of the provincial health department.

Persons who are able to pay for sanatorium care are required to do so but municipalities are no longer liable in cases of indigency. The province makes a grant of $2.10 per diem for all patients in sanatoria.

The province has made provision for compulsory treatment of tuberculosis cases, and developed an after-care programme by which municipalities are responsible for maintenance, and the province for medical treatment, of cases discharged from sanatoria. Educational activities and the extension of diagnostic facilities are carried out through the provincial Division of Tuberculosis Prevention and local boards of health.

Manitoba—Coordination of diagnosis, prevention and treatment of tuberculosis in Manitoba is now carried out under the provincial Tuberculosis Control Commission, established in 1944. This agency operates clinics, distributes patients to approved sanatoria for care, supervises treatment, and carries out a programme of prevention and rehabilitation. The Commission works in cooperation with the Manitoba Sanatorium Board and with other organizations operating institutions in which actual treatment is carried out. Patients receive treatment free of charge.

Cities pay a per patient per diem rate of $1.80 while other municipalities are charged, not on the basis of care given to their residents, but as a group, through the equalized Municipal Commissioner's levy. This portion of the levy amounts to not more than $175,000 annually. Costs for patients from unorganized municipalities are met by the province, which also makes a statutory grant of 50 cents per diem for all sanatorium patients.

Saskatchewan—The treatment of all tuberculosis patients who are residents of Saskatchewan is under the direction of the Anti-Tuberculosis League. This organization, supported by both provincial and municipal governments, operates sanatoria and clinics, and carries out a tuberculosis prevention programme.

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The province makes a contribution of $1.00 per diem per patient to sanatoria operated by the League and to approved hospitals. The cost of maintenance apart from the provincial contribution is divided between the urban and rural municipalities on a pro-lateral basis of equalized assessment. The present apportionment is on the basis of 40 per cent to urban and 60 per cent to rural municipalities.

Alberta—The prevention of tuberculosis and the treatment of patients is the direct responsibility of the provincial government. All persons establishing a resident status receive free diagnosis and those suffering from infectious tuberculosis are given free hospitalization and treatment. If such patients are cared for in hospitals other than those operated by the provincial government, they receive a per diem contract payment of $2.50.

When other tuberculosis cases are admitted to approved hospitals, the province makes a grant of 45 cents per patient per day.

British Columbia—Central control and unification of all facilities are made effective in British Columbia through the Division of Tuberculosis Control, which is responsible for provincial sanatoria and for related programmes of prevention and rehabilitation.

Foster-home and after care programmes are facilitated by use of the generalized provincial welfare field service.

Persons who can pay for care in tuberculosis institutions are required to do so, the rate being $3.00 a day.

Municipalities pay 80 cents a day, or an approved fixed grant, for indigent residents given sanatorium care, and all other provincial sanatorium costs are met by the province.

A per diem rate of $1.25 is paid by the province for each patient treated in a public hospital, irrespective of the number of days' treatment in any year. The municipal obligation to public hospitals for the care of tuberculous patients must not exceed 70 cents per day.

SOURCES:

Canadian Tuberculosis Association, Dr. G. J. Wherrett, Secretary.
Provincial Departments of Health.
Dominion Bureau of Statistics.

5. MENTAL HEALTH

The wide field of mental illness constitutes the largest special medical and hospital problem in Canada. Psychiatry has expanded tremendously within recent years.

Problems of mental health and ill health begin in the early years of childhood and continue in the school where cases of retarded mental development are often first recognized and perhaps reversible symptoms of actual mental illness are also observed. Later, in industry, success or failure may be as much a question of mental stability as of physical fitness. An unfortunate distinction has developed between these two phases of health, with sinister implications for the patient suffering from "mental illness", but there is a growing recognition that treatment and prevention must be prepared to give full consideration to mental as well as to the physical aspects of personal and community health.

Mental hygiene programmes involve the application of preventive principles to illnesses and difficulties of early childhood and of school children, to industrial disabilities relating to fatigue, friction and general inefficiency, and to the psychological aspects of disturbed home and family relationships. Treatment involves the application of any possible corrective measures for all such conditions. Most of these problems are matters concerning the mental health and stability of the individual and of the community. They need treatment like any other disabilities, but do not require hospitalization at all. They are problems of the increasingly important field of preventive medicine in its broader interpretation.

Mental Disorders—Neuroses, often called "nervous" conditions, are mental disorders which are very numerous among children and adults. Most cases can be treated at home or by office practice. If hospitalization is needed, most of these cases can be cared for in general hospitals, very few requiring mental hospital care.

Cases of psychosis or "insanity" comprise the largest group requiring hospitalization. During the incipient stages, intensive treatment at home, by a mental health clinic, or in a psychiatric ward in a general hospital may prevent acute symptoms and lead to recovery.

Where such treatment is unsuccessful, mental hospital facilities are necessary, standard requirement being hospital accommodation for four persons in every thousand of the general population.

The Epilepsies—Epileptic persons constitute about 250 to 400 per 100,000 of the population, most of whom can be treated at home or by office practice. Severe cases require special hospital facilities at the rate of 25 beds per 100,000 of the general population.

Mental Defect—Mentally defective persons constitute 1,000 to 1,500 per 100,000 of the general population, but only 100 to 150 require special institutions for training, treatment and care. The great majority can be cared for at home and trained in auxiliary classes of the school system.

Addiction to Alcohol and Narcotic Drugs—Habituate cases, comprising the smallest group of psychopathic states, represent a distinct problem in treatment. Addictions are closely related to mental disorders, but involve special equipment and treatment facilities.

PREVENTION AND TREATMENT

Trained personnel and adequate facilities are essential requirements in the development of prevention and treatment phases of a comprehensive mental hygiene programme.

Personnel—Until recently, nearly all the care of the mentally ill has been on the treatment side, but it is well recognized that in the future adequate personnel must be provided to deal with both preventive and curative aspects of mental illness.

To develop personnel qualified to deal with mental health needs, special training is necessary for workers in several related fields. Curricula in medical schools may need to be amplified if students are to be qualified in preventive psychiatry as in preventive medicine generally, and opportunities are required for physicians in practice to obtain training and experience in the field.

Training in mental hygiene for undergraduates and graduates in the allied services—nursing, social service, occupational therapy and education—would qualify workers in these fields for effective participation in different phases of comprehensive mental health programmes.

Facilities—In addition to the out-patient services of general hospitals and the treatment given in mental institutions, which have been the principal means of dealing with psychiatric disorders, additional facilities are necessary to meet special needs. These include:

Mental health clinics—These clinics are required for consultation and treatment, particularly of less severe or incipient conditions. One such clinic can serve approximately 200,000 people in urban areas or 100,000 in rural districts.

Psychiatric wards in general hospitals—The realization that the mentally sick are really sick people who may need very complete examinations and consultations for diagnosis and adequate treatment calls for the establishment of properly equipped wards in all general hospitals of fifty beds or more (and at least one or more properly equipped rooms in smaller hospitals). Such a ward would be for short treatment only: prolonged illnesses would be cared for in mental institutions.

Hospitals for the Elderly Mentally Ill—It is important that elderly persons, who constitute an increasingly large proportion of citizens, receive the medical attention necessary for their welfare. People above the age of sixty now comprise more than 20 per cent of the admissions to mental hospitals, adding definitely to the conditions of overcrowding. Hospitals for elderly people should be suitably staffed and equipped to care for all types of illness common to advancing years, including mental illness.

Family Care for Mentally Sick Persons—Under the family care system selected patients are placed in approved homes in a community within convenient access to the hospital, where the patient can be cared for with a minimum of supervision and lead as active a life as possible.

The boarding-out system provides the most suitable form of treatment for many patients, relieves institutional overcrowding, and reduces the need for new construction.

MENTAL HYGIENE SERVICES

Mental hygiene services in Canada are administered by provincial and local health and welfare departments, actual treatment being carried out in 59 mental institutions.

These include: 32 hospitals for the mentally ill, in all provinces; five provincial training schools for mental defectives, in Nova Scotia, Quebec, Ontario, Manitoba

and Alberta; two psychiatric hospitals, in Toronto and Winnipeg; fifteen local institutions, all in Nova Scotia; two federal hospitals and three private sanitaria.

The number of patients under treatment in these institutions has risen sharply in recent years. This is shown in Table 11, which compares the number of patients in 1935 and 1943, according to mental status.

The increase in the numbers of hospitalized cases of mental illness has been more rapid than population growth. In all provinces, the proportion which such patients bear to the general population showed an increase during the period 1933 to 1943. This is indicated in Table 12.

The striking increase is regarded as due to a variety of factors, including the ageing of the general population so that the older groups with higher psychotic incidence are relatively larger, the extension of diagnostic facilities leading to the recognition of milder cases of mental illness, the growing tendency to hospitalization, and an apparent increase in mental illness in comparison with population growth.

OVERCROWDING AND INSTITUTIONAL REQUIREMENTS

Most Canadian mental hospitals are overcrowded, average patient population exceeding normal bed capacity in all provinces except Prince Edward Island, Nova Scotia and New Brunswick. As indicated in Table 14 this does not necessarily mean that existing bed accommodation is adequate in these provinces. The extent of overcrowding, as indicated by excess of patient population over normal capacity, is shown in Table 13 which also indicates the increase in hospital accommodation between 1935 and 1943.

TABLE 11—PATIENTS UNDER TREATMENT ACCORDING TO MENTAL STATUS 1935 AND 1943

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	1935					1943					Per cent increase		
	Total patients	Insane	Mental defectives	Epileptics	All other types	Total patients	Insane	Mental defectives	Epileptics	All other types	Total patients	Insane	Mental defectives
CANADA	49,966	39,613	8,730	769	854	61,244	47,287	12,122	867	968	22·6	19·4	38·9
Prince Edward Island	362	337	7	—	18	375	336	5	3	31	3·6	−0·3	−28·6
Nova Scotia	2,532	2,172	347	13	—	2,826	2,353	433	24	16	11·6	8·3	24·8
New Brunswick	1,216	992	136	77	11	2,009	1,674	229	82	24	65·2	68·8	68·4
Quebec	14,672	10,749	3,250	247	426	18,463	13,249	4,689	286	239	25·8	23·3	44·3
Ontario	17,568	13,947	2,979	409	233	20,298	15,719	3,785	402	392	15·5	12·7	27·1
Manitoba	3,310	2,783	495	11	21	3,740	3,063	609	12	56	13·0	10·1	23·0
Saskatchewan	3,478	2,852	587	3	36	4,810	3,692	1,041	35	42	38·3	29·5	77·3
Alberta	2,838	2,311	409	9	109	3,567	2,928	523	18	98	25·7	26·7	27·9
British Columbia	3,990	3,470	520	—	—	5,156	4,273	808	5	70	29·2	23·1	55·4

TABLE 12—INCREASE IN NUMBER OF MENTAL HOSPITAL PATIENTS, 1933 TO 1943

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	Number of Resident Patients				Resident Patients per 100,000 population			
	At Dec. 31, 1933	At Dec. 31, 1943	Increase	Per cent Increase	At Dec. 31, 1933	At Dec. 31, 1943	Increase	Per cent Increase
CANADA	34,979	46,631	11,652	33·31	325	395	70	21·54
Prince Edward Island	257	272	15	5·84	289	299	10	3·46
Nova Scotia	1,925	2,242	317	16·47	367	369	2	·54
New Brunswick	885	1,219	334	37·74	209	263	54	25·83
Quebec	9,798	13,898	4,100	41·84	327	402	75	22·93
Ontario	12,150	14,897	2,747	22·60	342	380	38	11·11
Manitoba	2,422	2,995	573	23·66	333	413	80	24·02
Saskatchewan	2,689	4,121	1,432	53·25	280	489	209	74·64
Alberta	1,954	3,003	1,049	53·68	255	379	124	48·63
British Columbia	2,899	3,984	1,085	37·43	403	443	40	9·93

Overcrowding of mental hospitals, characteristic of all provinces west of the Maritimes, varies in extent from province to province. British Columbia, which shows the highest degree of overcrowding of the six, had the smallest increase in accommodation between 1935 and 1943. Saskatchewan, where overcrowding was second highest, had the greatest increase in hospitalized mental illness. Substantial increases in hospital accommodation in Quebec, Ontario and Alberta are reflected by less overcrowding.

Comparison of the number of beds available and the average patient population indicates only the extent of existing accommodation in terms of the number of persons actually receiving hospital care.

The adequacy of existing facilities may also be measured in relation to standard requirements based on population. Table 14 provides the data for comparing Canadian institutional accommodation with the standards which have been described on page 20.

Shortage of facilities for the training of mental defectives is greater than that for the treatment of the mentally ill. It is possible that this might not be the case if a distinction could be made between facilities for custodial care only and those for actual psychiatric treatment of the mentally ill.

Minimum standards for mental hospital accommodation include not only a specified number of beds in relation to the population, but also facilities and equipment necessary for care and treatment of patients. To build a properly constructed and equipped hospital to accommodate 1,000 to 2,000 patients would cost from $2,500 to $3,500 per bed. Additions to existing institutions could be built in most cases for $1,500 to $2,000 per bed.

TABLE 13—BED CAPACITY OF MENTAL INSTITUTIONS, 1935 AND 1943, AND PATIENT POPULATION, 1943

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	Normal Bed Capacity, 1935	Normal Bed Capacity, 1943	Per Cent Increase	Average Daily Patient Population, 1943	Per Cent Excess of Average Daily Population over Bed Capacity, 1943
CANADA	35,987	42,454	18·0	46,697	10·0
Prince Edward Island	275	275	—	274	—
Nova Scotia	2,120	2,556	20·6	2,283	—
New Brunswick	900	1,250	38·9	1,248	—
Quebec	10,383	13,372	28·8	13,833	3·5
Ontario	12,777	14,239	11·4	15,086	5·9
Manitoba	2,492	2,504	0·5	2,992	19·5
Saskatchewan	2,550	2,970	16·5	4,084	37·5
Alberta	2,035	2,830	39·1	2,939	3·8
British Columbia	2,455	2,458	0·1	3,958	61·0

TABLE 14—CANADIAN FACILITIES AND REQUIREMENTS IN RELATION TO STANDARDS FOR MENTAL INSTITUTIONS, 1943

—	Estimated Population 000's	Hospitals for the Mentally Ill and Epileptic			Schools for the Mentally Defective			Total New Beds Required
		Beds Required Standard 425 per 100,000	Normal Bed Capacity	New Beds Required	Beds Required Standard 125 per 100,000	Normal Bed Capacity	New Beds Required	
CANADA	11,795	50,129	38,919	11,210	14,744	3,535	11,209	22,419
Prince Edward Island	91	387	275	112	114	—	114	226
Nova Scotia	607	2,580	2,406	174	759	150	609	783
New Brunswick	463	1,968	1,250	718	579	—	579	1,297
Quebec	3,457	14,692	12,922	1,770	4,321	450	3,871	5,641
Ontario	3,917	16,647	12,062[1]	4,585	4,896	2,177	2,719	7,304[1]
Manitoba	726	3,086	2,028	1,058	907	476	431	1,489
Saskatchewan	842	3,578	2,970	608	1,053	—	1,053	1,661
Alberta	792	3,366	2,548	818	990	282	708	1,526
British Columbia	900	3,825	2,458	1,367	1,125	—	1,125	2,492

[1] This is exclusive of accommodation at the Ontario Hospital, St. Thomas, which was leased to the Dominion Government from 1939 to 1945 for use as an R.C.A.F. training centre. This institution, which had 1,050 patients at July 31, 1939, will again be in use as a mental hospital at an early date.

Family care of mentally sick persons can obviate the heavy capital outlay and maintenance charges for many patients which would have to be undertaken if all the mentally ill were to be treated in institutions. The actual cost of patients in institutions varies in individual provinces, but is ordinarily greater than the costs of family care.

Two provinces, Ontario and Manitoba, have initiated programmes of family care for mentally sick persons in supervised boarding homes. All the provinces except Saskatchewan and Prince Edward Island have parole systems in effect, New Brunswick, Quebec and Ontario having the highest proportions of paroled patients.

Table 15 shows the proportion of resident and non-resident patients under care in Canadian mental institutions.

COSTS OF TREATMENT

Saskatchewan is the only province providing free treatment for patients suffering from mental illness, the provincial programme of free care to residents having been initiated there January 1, 1945. In all other provinces, those who can pay for care are required to do so, the cost for indigent patients being shared in some instances between the provincial and the municipal authority.

In British Columbia, Manitoba, Prince Edward Island and Quebec, as well as in Saskatchewan, municipalities make no contributions towards mental hospital costs. Provincial assumption of what were formerly municipal costs in Quebec was made effective at the beginning of 1945.

TABLE 15—RESIDENT AND NON-RESIDENT PATIENTS UNDER CARE, DECEMBER 31, 1943

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	Total	In Hospital	Per Cent	Boarding Out	Per Cent	On Parole	Per Cent
CANADA	51,071	46,631	91·3	541	1·6	3,899	7·6
Prince Edward Island	272	272	100·0	—	—	—	—
Nova Scotia	2,312	2,242	96·9	—	—	70	3·0
New Brunswick	1,678	1,219	72·6	—	—	459	27·4
Quebec	15,736	13,898	88·3	—	—	1,838	11·7
Ontario	16,628	14,897	89·5	531	3·2	1,200	7·2
Manitoba	3,096	2,995	96·7	10	0·3	91	2·9
Saskatchewan	4,121	4,121	100·0	—	—	—	—
Alberta	3,063	3,003	98·0	—	—	60	2·0
British Columbia	4,165	3,984	95·7	—	—	181	4·3

Expenditures of Canadian mental institutions in the various provinces in 1943 are shown in Table 16 together with an analysis of sources of funds.

PROVINCIAL ORGANIZATION AND ARRANGEMENTS FOR CARE

Mental hygiene programmes vary from province to province, as do provisions for meeting the costs of care. Provincial organization and arrangements for treatment are summarized briefly in the following:

Prince Edward Island—Mental hygiene services are made available to the people of Prince Edward Island through the treatment facilities for the mentally ill provided at the Falconwood Hospital in Charlottetown. This is a provincial institution, operated along with the provincial infirmary.

Persons receiving mental hospital treatment are required to pay if they are financially able to do so, and the balance of the cost is met by the province. Municipalities have no financial responsibility in connection with the treatment of indigent patients.

Nova Scotia—Nova Scotia has a mental hospital and a school for mental defectives operated by the province, and fifteen local institutions providing custodial care. The latter account for three-quarters of the normal capacity of Nova Scotia mental institutions.

A charge is made in all institutions for persons who are financially able to pay. Costs for indigent residents receiving treatment in the provincial mental hospital or training school are met by municipalities at the rate of $9 a week, while local institutions are maintained wholly at municipal expense.

In addition to the Nova Scotia Hospital and the Nova Scotia Training School, each of which is operated under the provincial health department, there is a Provincial Psychiatrist attached to the Department of Public Welfare.

A mental health programme is carried out in the City of Halifax through the facilities of the Dalhousie Clinic.

New Brunswick—Treatment for the mentally ill in New Brunswick is provided in the Provincial Hospital at Saint John. Payment is required on behalf of patients where financial circumstances warrant it, municipal authorities contributing $2 weekly toward the costs of treatment for indigent residents. All other costs are met by the provincial government, which has full administrative responsibility.

Quebec—There are six mental hospitals and a school for mental defectives in the Province of Quebec, as well as a Dominion government hospital and a private institution for the mentally ill. Special treatment for insane criminals is provided in the hospital at Bordeaux.

The government of Quebec assumed responsibility for the maintenance of indigent patients in provincially supported mental hospitals from January 1, 1945. Previously, the municipality of domicile was responsible for half these costs. Maintenance charges are collected from persons legally responsible for patients, and in a position to pay for treatment.

Extensive mental health and psychiatric programmes are carried out locally in the province, notably in the city of Montreal, under private and university auspices.

TABLE 16—EXPENDITURE AND SOURCE OF FUNDS OF MENTAL INSTITUTIONS, 1943

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics, unless otherwise noted)

(thousands of dollars)

—	Total Expenditure		Source of Funds					
	Maintenance	Capital and Other	Total	Province	Municipalities	Dominion payments for patients	Income from paying patients	Other
CANADA	18,204	995	19,214	11,712	1,803	1,960	2,626	1,113
Prince Edward Island	169	12	181	160	—	—	19	2
Nova Scotia	748	17	767	235[1]	461	6	46	19
New Brunswick	441	6	441	159	225[2]	—	55	2
Quebec	5,073	808	5,879	2,911[3]	790[4]	1,050	612	516
Ontario	6,407	20	6,456	3,938	235	769	1,199	315
Manitoba	1,156	14	1,170	883	77	28	113	69
Saskatchewan	1,567	8	1,575	1,270	—	—	152	153
Alberta	1,060	106	1,153	893	11	9	204	36
British Columbia	1,583	4	1,592	1,263	4	98	226	1

[1] Information from the Public Accounts for the fiscal year ended November 30, 1943, shows net provincial expenditure on this account of 157 on an accrual basis.

[2] Part of this amount was paid to Municipalities out of the Provincial Tobacco Tax Fund.

[3] See Foot Note [4].

[4] Estimate based on information in the Provincial Public Accounts for the fiscal year ended March 31, 1944, which shows contributions of Municipalities and paying patients at 1,401.

Ontario—The Hospitals Branch of the Ontario Health Department administers eleven mental hospitals, a hospital for epileptics, a hospital school for mental defectives, and under special arrangements, a psychiatric hospital in the city of Toronto.

Travelling clinics for diagnosis and out-patient treatment are operated by the Branch, which also cooperates with municipal authorities in the development of local mental hygiene programmes.

Where the family or the patient can afford to pay, they are charged for treatment. Otherwise, the cost is met by the province.

Municipalities contribute 10 cents a day for indigent patients, up to the amount payable to them by the province under the statutory provision for the distribution of the provincial railway tax. For indigent patients in the provincial hospital for epileptics, municipalities pay 50 cents a day. Toronto and York township, and in certain cases other municipalities may send patients to the Toronto Psychiatric Hospital, municipal liability for costs being limited to ten days for each patient at $1.50 a day.

The Dominion government operates a mental hospital in the Province of Ontario, and there is one private hospital giving treatment to the mentally ill.

Manitoba—The Province of Manitoba operates two mental hospitals, a school for mental defectives and, under special arrangement, a psychopathic hospital in Winnipeg. The province provides all facilities for care, no charge being made against the municipalities. From individuals who can afford to pay, the province collects from 50 cents to the full rate of $1.25 a day, the charge being fixed in relation to ability to pay.

Diagnostic clinics and out-patient treatment facilities are provided in Winnipeg and Brandon through the provincial service, which also cooperates with municipal authorities in the development of their mental hygiene programmes.

Saskatchewan—The Province of Saskatchewan through its Department of Health, operates two hospitals for the mentally ill, and has recently initiated psychopathic hospital services through a special arrangement with the Regina General Hospital.

Subject to certain minor limitations, persons fulfilling residence requirements are entitled to care and treatment at the expense of the province. No charge is made either to the patient or to the municipality from which he comes.

Alberta—The Alberta Department of Health administers two provincial mental hospitals, two auxiliary hospitals, and a training school for mental defectives as well as a comprehensive mental hygiene programme including preventive service, diagnostic facilities, family care for the mentally ill and rehabilitation.

Where relatives are in a position to pay for treatment of a patient, the province makes a charge of $1 a day for care in mental hospitals. There is no municipal responsibility for treatment of indigent patients.

The Department of Public Health makes a charge of $15 a month for the maintenance of mentally defective persons in the provincial school. Municipalities of which such patients are resident are responsible for this charge, but they may recover their costs from responsible persons.

British Columbia—The provincial mental hygiene programme in British Columbia is administered under the Department of the Provincial Secretary. The three provincial hospitals are administered as a unit, along with the Psychopathic Division, under the Provincial Psychiatrist, who also has charge of related mental health services.

No municipal charges are in effect in British Columbia, but a charge of $1 per day is made for patients who are financially able to pay for treatment.

Rehabilitation and follow-up work in connection with the provincial mental hygiene programme is carried out throughout the province by the generalized provincial welfare field service.

In addition to the public hospitals, there is a private sanitarium giving care to the mentally ill in British Columbia.

SOURCES:

Brief on Mental Diseases presented to the House of Commons Special Committee on Social Security by the late Dr. B. T. McGhie, former Deputy Minister of Health for Ontario, May 18, 1943.

Provincial Departments of Health.

Dominion Bureau of Statistics.

6. VENEREAL DISEASE

HISTORY OF DOMINION GRANTS TO THE PROVINCES

During 1914-1918 the incidence of venereal diseases increased, and it was considered advisable to take active steps to prevent their dissemination throughout the population. In the United States, the Chamberlain-Kahn Act of July, 1918, provided for a Federal Grant to the States of $1,000,000 for the control of venereal diseases among the civilian population, an additional $1,000,000 to be expended under the direction of the Secretaries of War and Navy for the control of these diseases among military and naval forces. It provided an additional $400,000 for medical education and research.

After the passage of the Chamberlain-Kahn Act, United States officials, who were familiar with the venereal disease program which was initiated in the United States, were invited to an interprovincial conference in Canada to explain the features of that Act. The assistance of these officials had an influence in determining a Canadian appropriation for venereal disease control.

At the request of the Dominion Council of Health, the Dominion Government in 1919 voted $200,000 for the control of venereal disease. This grant was allocated to the various provinces on the basis of population and subject to eight conditions, the most important of which was that each participating province was to expend an amount equal to that received from the Dominion Government.

All the provinces, with the exception of Prince Edward Island which at that time did not have a health department, entered into the agreement. The same amount of $200,000 was voted for the four subsequent years. For the year 1924-25 the amount voted was $150,000, for the years 1925-26 and 1926-27 the amount voted was $125,000. From the year 1927-28 to the year 1931-32 the amount voted was $100,000.

At a meeting of the Dominion Council of Health in December, 1931, it was resolved that the Government of

Canada be commended for what had already been done for the control of venereal disease and be requested to increase the grants to the provinces.

The venereal disease grant was discontinued in the fiscal year 1932-33.

The Dominion Council of Health at their meeting in May, 1932, passed a resolution requesting that the Federal aid to the provinces for venereal disease control work be re-established at the earliest possible moment permitted by economic conditions.

In November, 1936, the Dominion Council of Health appointed a Committee of five to study and report on Dominion grants to the provinces. In June, 1937, the Committee reported to the Dominion Council of Health that the withdrawal of grants made to the provinces by the Federal Government had resulted in materially lessening the effort directed at public education and follow-up work, and that there had been a lessening of facilities for treatment, particularly in the Province of Quebec. The Committee further recommended that the Dominion grants be re-established.

In June, 1937, the Canadian Medical Association, the Canadian Public Health Association, and the National Council of Women of Canada, passed resolutions that the Dominion Government be asked to reinstate the grants to the provinces.

In May, 1938, a recommendation was made to the Minister of Health suggesting that consideration be given to the distribution to the provinces, at Federal Government expense, of arsenical preparations utilized for the treatment of syphilis.

On May 27, 1938, the Dominion Government voted the sum of $50,000 for the distribution of arsenicals to the provinces on the basis of population and the number of treatments, subject to an undertaking that the provinces would not curtail their venereal disease expenditures for any year in which they accept arsenicals from the Federal Department of Health as compared with their expenditures for their work in this field for the year previous to the acceptance of this grant. This sum of $50,000 has been voted each year since the fiscal year 1938-39.

The main object of this grant for the distribution of arsenicals was to help the provinces release their provincial money then expended in the provision of drugs, the resumption of educational campaigns, follow-up of cases and investigation of contacts, thereby correcting some of the deficiencies which had prevailed since the discontinuance of the federal grant to the provinces in 1932.

On September 21, 1942, at a meeting of provincial ministers in Ottawa, the problem of veneral disease control was discussed. The situation over the past several years, the discontinuance of federal grants and the desirability of their resumption were considered. It was suggested that the Dominion Council of Health should be expected to make recommendations as to the scope of the expenditure of the grants by the provinces. The meeting concurred in the proposed recommendations.

The Dominion Council of Health then prepared a draft submission of a plan covering federal allotments to the provinces for venereal disease control activities for the fiscal year 1943.

On June 15, 1943, P.C. 132/4857 was approved by His Excellency the Governor General in Council. This provided for a vote of $175,000 for assistance to the provinces for the control of venereal disease, continuation of the vote of $50,000 for distribution of arsenicals, and provision of $15,000 for administration. The total appropriation for venereal disease was, therefore, set at $240,000.

The same appropriation was continued for the fiscal year 1944-45, and has also been voted for the year 1945-46.

Table 17 summarizes the venereal disease appropriations since their inception in 1919:

TABLE 17—FEDERAL EXPENDITURES FOR VENEREAL DISEASE

(Fiscal Years 1919-20 to 1945-46)

(Source: Public Accounts, Dominion of Canada)

(thousands of dollars)

Fiscal years	Annual Federal Grants to the Provinces	Annual Distribution of Arsenicals	Annual Administration
1919-20 to 1923-24.....	200·0	—	—
1924-25.....	150·0	—	—
1925-26 to 1926-27.....	125·0	—	—
1927-28 to 1931-32.....	100·0	—	—
1932-33 to 1937-38.....	No grant	—	—
1938-39 to 1942-43.....	No grant	50·0	—
1943-44 to 1945-46.....	175·0	50·0	15·0

ROLE OF THE DOMINION IN VENEREAL DISEASE CONTROL

At the Dominion-Provincial Conference of Venereal Disease Control Directors, August 8-11, 1944, the Conference approved that the function of the Federal Division of Venereal Disease Control is to give leadership in reducing the menace of venereal infections in Canada:

(*a*) By planning, in consultation with the provinces, adequate control measures on a comprehensive, effective basis;

(*b*) To assist in the implementation and carrying out of the plans for the annual provision and distribution of federal grants;

(*c*) To perform the functions of coordination, integration, standardization, survey and appraisal, and general exchange of administrative ideas by consultation and conferences with the provinces and national agencies and groups;

(*d*) To assist in the provision of lay and professional informational services; and

(*e*) To encourage research and improve training facilities for professional personnel.

SERVICES AND METHODS OF CONTROL IN THE PROVINCES

There is a separate Division of Venereal Disease Control with personnel employed on full-time basis in the Provincial Department of Health of the Provinces of New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia. There is

no separate Division of Venereal Disease Control in Prince Edward Island nor in Nova Scotia, but in these provinces the venereal disease work is carried out directly by personnel of the Provincial Health Department on a part-time basis.

All provinces offer the same general type of service with slight modification to suit local conditions. These services may be briefly described as follows:

1. Collection of statistics on the incidence of venereal disease.
2. Provision of laboratory facilities for the diagnosis of venereal disease.
3. Maintenance of provincial clinics for the free treatment and diagnosis of venereal disease.
4. Distribution of medication to physicians for the treatment of their patients.
5. Epidemiological investigation by social service workers of persons who are named as contacts to cases of venereal disease.
6. Case-finding of venereal disease through blood test and medical examination of special groups such as prostitutes.
7. Application of "Venereal Disease Control Act" in cases where patients with venereal disease in a communicable form refuse to take treatment.
8. Education of the population on venereal disease.

The following is a brief description of the services offered by each individual province:

Prince Edward Island—

1. Provision for laboratory diagnosis of venereal disease at Provincial Laboratory in Charlottetown.
2. Maintenance of two venereal disease clinics in Charlottetown and Summerside for the diagnosis and treatment of venereal disease.
3. Epidemiological investigation of contacts to cases of venereal disease.
4. Educational programme.

Nova Scotia—

1. Provision of free laboratory service for the diagnosis of venereal disease at the Provincial Laboratory in Halifax.
2. Maintenance of nine clinics for the free diagnosis and treatment of venereal disease.
3. Free drugs to all physicians who request them.
4. Epidemiological investigation of contacts by social nurses.
5. Part-time help from the five provincial health units and their staff.
6. Visual education for venereal disease.

New Brunswick—

1. Provision of free laboratory service through the Provincial Laboratory located in Saint John.
2. Maintenance of fourteen clinics for the medical care of venereal disease patients.
3. Arsenical preparations supplied free of charge to physicians by the Department of Health.
4. Free consultative service available to physicians.
5. Epidemiological investigation by public health nurses of contacts to cases of venereal disease.
6. Educational programme on venereal disease.

Quebec—

1. Provision of laboratory facilities for the diagnosis of venereal disease at the Provincial Laboratory in Montreal. There are no branch laboratories in Quebec.
2. Maintenance of twenty-three venereal disease clinics for indigent patients. There are nine clinics in Montreal, five clinics in Quebec City and nine clinics in other cities of the Province.
3. Payment of remuneration to physicians where there is no clinic.
4. Free distribution to physicians of anti-syphilitic drugs for all patients.
5. Provision for full hospitalization when required and for isolation of delinquent infectious cases.
6. Epidemiological investigation of persons named as contacts to cases of venereal disease.
7. Consultative assistance to physicians by correspondence upon request.
8. Public education in relation to venereal disease.

Ontario—

1. Provision of laboratory facilities for diagnosis of venereal disease at the Central Provincial Laboratory in Toronto and at branch laboratories in Kingston, Ottawa, Hamilton, London, Windsor, Peterborough, and Fort William.
2. Maintenance of clinics for the free treatment and diagnosis of venereal disease. There are six clinics in the City of Toronto and fourteen clinics in other cities of the Province.
3. Fever therapy service for cases of neurosyphilis.
4. Treatment subsidies paid for treatment by private physicians.
5. Drug distribution to physicians.
6. Consultative and library service for physicians.
7. Epidemiological investigation of all persons named as contacts to cases of venereal disease.
8. Promotion of community action against venereal disease.
9. Health education on venereal disease.
10. Advancement of venereal disease control through teaching and research.

Manitoba—

1. Laboratory facilities for the diagnosis of venereal disease provided at the provincial clinic located in Winnipeg. Keidel tubes supplied free to physicians and institutions.
2. Maintenance of provincial Venereal Disease Clinic at St. Boniface Hospital, Winnipeg, for the free diagnosis and treatment of venereal disease.
3. Examination and treatment in all jails and detention homes by the physician in charge.

4. Remuneration of physicians for the treatment of indigent syphilitic patients in rural areas where there are no facilities for free treatment.
5. Drugs supplied free for all indigent syphilitic patients. Arsenicals are free for any patient, irrespective of means.
6. Epidemiological investigation of all contacts to cases of venereal disease carried out by public health nurses.
7. Educational programme for venereal disease.

Saskatchewan—

1. Provision of laboratory facilities for the diagnosis of venereal disease at the Provincial Laboratory in Regina.
2. Operation of four full-time clinics and of one part-time clinic for the free diagnosis and treatment of all patients. Operation of a part-time clinic at the Regina jail.
3. Supply of all drugs required for the treatment of both syphilis and gonorrhoea free of charge to physicians for the treatment of their reported cases.
4. Epidemiological investigation of persons named as contacts to cases of venereal disease.
5. Community educational programme on venereal disease.

Alberta—

1. Laboratory facilities for the diagnosis of venereal disease are provided by the Alberta Provincial Laboratory located at Edmonton.
2. Maintenance of provincial clinics for the free treatment and diagnosis of venereal disease in Calgary, Edmonton, Lethbridge and Medicine Hat.
3. Maintenance of treatment clinics in remote areas of the north country where nurses with special training give the treatments under the advice of the Director of Venereal Disease Control Division. These clinics are located at High Prairie, MacLennan and Peace River.
4. Supply of free drugs to private physicians.
5. Consultative service for physicians.
6. Epidemiological investigation by the social service workers of persons named as contacts to cases of venereal disease and treatment of all cases found to be infected.
7. Educational programme of venereal disease.

British Columbia—

1. Provision of laboratory facilities for the diagnosis of venereal disease at Provincial Laboratory in Vancouver.
2. Maintenance of ten venereal disease clinics throughout the Province.
3. Free medications distributed by the Provincial Board of Health.
4. Epidemiological investigation of persons named as contacts to cases of venereal disease.
5. Specific action directed towards those premises which facilitate the spread of venereal disease.
6. General educational programme.
7. Special high school lecture programme.

COSTS OF VENEREAL DISEASE CONTROL

As shown in Table 18, total expenditures for venereal disease control in Canada, by all governments during the fiscal year 1943-44 amounted to more than $788,000. Direct expenditures by the provinces totalled $563,000, the balance being distributed to the provinces by the Dominion for (*a*) Grants—$175,000 and (*b*) Value of Arsenicals—$50,000.

TABLE 18—EXPENDITURES FOR VENEREAL DISEASE—FISCAL YEAR 1943-44

(Source: Public Accounts)

(thousands of dollars)

—	Department of Pensions and National Health				Provincial Expenditures	Total
	Federal Grants to the Provinces			Value of Arsenicals distributed to Provinces		
	Net Grant to each Province	Grant for Educational Materials	Total Grant to Provinces			
CANADA	148·8	26·3	175·0	49·9	563·5	788·4
Prince Edward Island	1·1	0·2	1·3	0·4	2·1	3·9
Nova Scotia	8·4	1·5	9·9	2·5	46·0	58·3
New Brunswick	6·5	1·2	7·6	2·0	15·2	24·8
Quebec	58·0	10·2	68·2	14·1	114·1	196·4
Ontario	39·6	7·0	46·5	16·6	232·8	295·9
Manitoba	8·2	1·5	9·7	3·2	27·3	40·2
Saskatchewan	10·9	1·9	12·8	4·2	19·3	36·3
Alberta	8·6	1·5	10·1	3·5	24·0	37·6
British Columbia	7·5	1·3	8·9	3·4	82·7	95·0

The per capita expenditures in each province by all governments for the control of venereal diseases is shown in Table 19. Comparable figures are not available for the United States on a State basis but the U.S. Federal grants for venereal disease control are allocated to the States on condition that 50 per cent thereof is matched from State funds. The U.S. Public Health Service reports that Federal Grants to the States in 1943 amounted to approximately $11,000,000, with State expenditures totalling about $7,000,000.

TABLE 19—VENEREAL DISEASE EXPENDITURES PER CAPITA BY PROVINCES, 1943-44

—	Estimated Population 1943	Total expenditures for Venereal Disease (thousands of dollars)	Expenditures per Capita (dollars)
Prince Edward Island	91,000	3·9	0·042
Nova Scotia	607,000	58·3	0·096
New Brunswick	463,000	24·8	0·053
Quebec	3,457,000	196·4	0·056
Ontario	3,917,000	295·9	0·075
Manitoba	726,000	40·2	0·055
Saskatchewan	842,000	36·3	0·043
Alberta	792,000	37·6	0·047
British Columbia	900,000	95·0	0·105
Total	11,795,000	788·4	0·066

MUNICIPALITIES AND VENEREAL DISEASE CONTROL

Figures are not available for municipal expenditures for venereal disease control. In fact, it is believed that very few Canadian cities have in the past made provision for a separate budget for this purpose. It is understood that the cities of Montreal and Toronto are studying the prevalence of venereal infections and need for the establishment of a venereal disease control division under the Medical Officer of Health. A proposal to establish such a municipally controlled organization for Winnipeg was rejected by the city after considerable study of the problem.

In the United States most of the large cities operate divisions for the control of venereal diseases. The U.S. Public Health Service recommends that every city of 250,000 population should have a full time division and that there should be one full-time venereal disease control officer for every 500,000 population. In Table 20 is shown the source of funds and per capita expenditures for venereal disease in twelve large cities in the United States.

SOURCES:

Division of Venereal Disease Control, Department of National Health and Welfare.
Provincial Departments of Health.
United States Public Health Services.
Dominion Bureau of Statistics.

7. GENERAL PUBLIC (ACUTE DISEASE) HOSPITAL CARE

Canada has a comprehensive system of hospitals for the treatment of patients suffering from acute and chronic diseases, and for providing care for maternity cases. In 1942 the total bed capacity of these hospitals was 65,032. The distribution of hospital beds in the various provinces is shown in Table 21, according to the type of hospital.

TABLE 20—VENEREAL DISEASE APPROPRIATIONS IN VARIOUS LARGE CITIES OF THE UNITED STATES—1943-44

(SOURCE: Modern Clinical Syphilology by John H. Stokes, M.D.)

(thousands of dollars)

—	Population	Source of Funds				Expenditure per Capita (dollars)
		Federal	State	Local	Total	
Baltimore	854,144	—	—	83·2	83·2	0·097
Boston	770,816	28·8	72·2	16·9	117·9	0·153
Chicago	3,260,000	491·0	56·0	258·0	805·0	0·247
Cincinnati	455,610	20·0	—	27·8	47·8	0·104
Detroit	1,750,000	50·0	—	90·0	140·0	0·080
Los Angeles	1,661,000	40·2	13·8	94·8	148·8	0·089
New Orleans	530,000	41·9	—	31·4	73·3	0·138
New York City	7,521,000	317·5	—	441·6	759·1	0·101
Philadelphia	1,957,549	116·1	—	81·7	197·8	0·101
Pittsburgh	671,659	84·3	—	37·0	121·4	0·180
San Francisco	675,000	56·1	7·1	66·7	129·9	0·192
St. Louis	814,717	1·0	55·3	47·9	104·2	0·127

In 1943, there were 50,286 beds and cribs in hospitals for the treatment of diseases other than tuberculosis and mental illness. This represented 4·3 beds for every 1,000 of the population.

The extent and recent growth of such hospitals is shown in Table 22, which indicates the number and capacity of such hospitals by provinces, and the ratio of bed capacity to the general population for 1933 and 1943.

TABLE 21—NUMBER AND BED CAPACITIES[1] OF HOSPITALS IN CANADA BY TYPE OF HOSPITAL, 1942

(SOURCE: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	PUBLIC								PRIVATE[3]		TOTAL	
	Acute Disease[2]		Chronic and Incurable		Contagious Diseases		Convalescent					
	Number	Beds	Number	Beds	Number	Beds	Number	Beds	Number	Beds	Number	Beds
CANADA	574	54,509[4]	21	3,627	13	1,608	10	813	286	4,475	904	65,032
Prince Edward Island	4	295	—	—	—	—	—	—	—	—	4	295
Nova Scotia	30	2,671	—	—	1	73	—	—	4	43	35	2,787
New Brunswick	18	1,752	1	32	—	—	—	—	4	95	23	1,879
Quebec	71	13,831	5	1,123	4	647	3	412	49	1,264	132	17,277
Ontario	145	15,936	8	1,429	3	474	6	336	52	1,019	214	19,194
Manitoba	39	3,810	1	415	2	297	1	65	10	139	53	4,726
Saskatchewan	89	4,475	2	222	—	—	—	—	97	848	188	5,545
Alberta	89	5,509	3	142	3	117	—	—	32	246	127	6,014
British Columbia	78	5,840	1	264	—	—	—	—	38	821	117	6,925
Yukon and N.W.T.	11	390	—	—	—	—	—	—	—	—	11	390

[1] Includes adult beds, cribs and bassinets.
[2] Includes General, Women's, Children's, Red Cross and Not Classified.
[3] Not designated as to type.
[4] Excluding 1,779 beds in 29 tuberculosis units in acute disease hospitals.

There was a marked increase in the number of hospital beds in all provinces from 1933 to 1943, the greatest increase occurring in Alberta, which had the highest proportion of beds in relation to the population in 1943. In the same year Prince Edward Island, where the increase in bed capacity had been least, had the lowest proportion of beds per 1,000 population. New Brunswick and Ontario, where hospital capacity in relation to the population was comparatively low in 1943, also showed relatively little increase during the previous ten years. In British Columbia, where 1933 hospital capacity was the highest in Canada, and 1943 capacity second highest, there was a decrease in the number of beds per 1,000 population attributable to the fact that increase of hospital facilities was less rapid than population growth.

Almost half the accommodation in Canadian public hospitals is in those with more than two hundred beds, and less than five per cent in those with less than twenty-five beds. The trend in recent years has been toward larger hospitals, for modern scientific medical care requires facilities and personnel which can only be supplied in such institutions. At the same time, the lack of small hospital facilities in Canada means that people in many rural areas are without adequate hospital care.

Table 23 shows an analysis of bed capacity of Canadian public hospitals in relation to the size of hospital.

TABLE 22—HOSPITALS IN CANADA,[2] BY PROVINCES, 1933 and 1943

(SOURCE: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	1933			1943			Per cent increase		
	Number of hospitals	Number of Beds and Cribs	Beds and Cribs Per 1,000 Population	Number of hospitals	Number of Beds and Cribs	Beds and Cribs Per 1,000 Population	Number of hospitals	Number of Beds and Cribs	Beds and Cribs Per 1,000 Population
CANADA	534	41,877	3·9	585	50,286	4·3	9·6	20·1	10·3
Prince Edward Island	3	232	2·6	4	261	2·9	33·3	12·5	11·5
Nova Scotia	27	1,566	3·0	31	2,416	4·0	14·8	54·3	33·3
New Brunswick	17	1,294	3·1	18	1,562	3·4	5·9	20·7	9·7
Quebec	73	11,599	3·9	79	13,978	4·0	8·2	20·5	2·6
Ontario	147	12,793	3·6	153	14,658	3·7	4·1	14·6	2·8
Manitoba	33	2,928	4·1	41	3,473	4·8	24·2	18·6	17·1
Saskatchewan	80	3,227	3·5	88	3,814	4·5	10·0	18·2	28·6
Alberta	81	3,730	5·0	92	4,929	6·2	13·6	32·1	24·0
British Columbia	73	4,508	6·3	79	5,195	5·8	8·2	15·2	−7·9

Includes General, Women's, Children's, Contagious Diseases, Convalescent, Red Cross and not classified.

TABLE 23—BED CAPACITY[1] OF CANADIAN HOSPITALS, BY SIZE OF HOSPITAL, 1942

(SOURCE: Institutional Statistics Branch, Dominion Bureau of Statistics)

—	Total		1-25 Beds		26-50 Beds		51-100 Beds		101-200 Beds		201 Beds and over	
	No. of Hospitals	No. of Beds	No. of Hospitals	No. of Beds	No. of Hospitals	No. of Beds	No. of Hospitals	No. of Beds	No. of Hospitals	No. of Beds	No. of Hospitals	No. of Beds
CANADA	586	56,484	156	2,663	159	5,953	118	8,379	85	11,843	68	27,646
Prince Edward Island	4	295	1	18	—	—	2	159	1	118	—	—
Nova Scotia	31	2,672	3	55	9	357	11	787	4	546	4	927
New Brunswick	18	1,752	2	32	3	136	7	480	5	656	1	448
Quebec	78	14,890	3	68	12	467	18	1,291	19	2,878	26	10,186
Ontario	154	16,746	36	484	39	1,532	26	1,778	35	4,815	18	8,137
Manitoba	42	4,172	9	183	15	573	7	500	6	824	5	2,092
Saskatchewan	89	4,485	46	818	22	765	13	932	4	611	4	1,359
Alberta	92	5,632	31	578	35	1,243	17	1,230	3	401	6	2,180
British Columbia	78	5,840	25	427	24	880	17	1,222	8	994	4	2,317
Per cent total bed capacity	.....	100·00	.....	4·71	.....	10·54	.....	14·84	.....	20·97	.....	48·94

[1] Including adult beds, cribs and bassinets.

Small hospitals are relatively most important in Alberta and Saskatchewan, where the development of publicly-owned hospitals, through joint action by provincial and municipal authorities, and through inter-municipal cooperation, has led to the extension of hospital facilities to sparsely-populated districts. It is significant that Alberta, which has the largest number of hospital beds in relation to the population in Canada and where increase in capacity is second highest, also has a high proportion of beds in small hospitals.

Authorities Administering Hospitals

Most Canadian hospitals are administered by religious groups or by lay voluntary boards on a non-profit basis, although in recent years, the municipal hospital, urban and rural, has been increasing in importance in the Canadian hospital system. A number of large urban centres have civic hospitals, while the municipal or "union" hospitals, which have been referred to, are becoming numerous in rural areas, particularly in the Prairie provinces.

Table 24 shows the distribution of hospitals in Canada under the various operating groups.

TABLE 24—CONTROLLING BODIES OF HOSPITALS[1] FOR ACUTE AND CHRONIC DISEASES IN CANADA, 1941

(Source: Institutional Statistics Branch, Dominion Bureau of Statistics)

——	Hospitals	Adult Beds and Cribs	Bassinets
Voluntary—			
Lay	215	20,106	2,478
Roman Catholic	181	21,886	1,593
Red Cross and Junior Red Cross	44	590	160
United Church	19	546	103
Salvation Army	11	688	295
Anglican Church	6	211	19
Other	17	733	92
Municipal (including union)	120	8,842	1,213
Provincial	4	950	31
Dominion	175	9,493	6
Private (including industrial)	325	3,867	776
Total	1,117	67,912[2]	6,766

[1] Including Children's, General, Women's, Contagious Diseases, Convalescent, Red Cross, Incurable, and Not Classified. Excluding Tuberculosis Sanatoria and Mental Hospitals.

[2] Including 2,090 beds in 37 tuberculosis units in acute disease hospitals.

Canada has relied principally on voluntary effort, through religious and lay bodies, for the development of hospital facilities. "Public" hospitals in Canada include not only those administered directly by a public authority, but all those which are subsidized out of public funds and admit patients irrespective of financial status, race, religion or colour.

Reliance upon the voluntary hospital system, while it has many advantages, has led to a lack of coordinated planning to meet the hospital needs of all the people of Canada. As a result, some communities lack hospital facilities, while in others there may be duplication. Some areas have a surplus of private ward beds, and a shortage of public ward beds. Many rural areas are still without adequate hospital accommodation.

Hospital Requirements

A variety of factors affect the need for hospital accommodation generally, and for the particular type of facilities necessary to meet requirements in different parts of the country. The demand for hospital care is influenced by many variables, including the attitude of the public, economic status, the age distribution of the population, the birth and death rate, and the prevalence of disease.

Accommodation for Special Types of Patients

Hospital accommodation is badly needed for the incurable and chronically ill, for convalescents, senile patients and for patients with communicable diseases.

As indicated in Table 21, there were only 21 hospitals with a total bed capacity of 3,627 to give care to the incurable and the chronically ill in all Canada in 1942. With the exception of a few large cities, most communities have no accommodation for such patients.

With respect to convalescent patients, the situation is even worse. There are only 10 convalescent hospitals in Canada, with a total of 813 beds. There are no public convalescent hospitals in Prince Edward Island, Nova Scotia, New Brunswick, Saskatchewan, Alberta nor in British Columbia although some of these provinces have private nursing homes where convalescent patients are accommodated.

More accommodation is urgently required for senile patients. Discharge of this type of patient from general hospitals is delayed because of the lack of facilities for care in the community. Most existing institutions for old people prefer inmates who can look after themselves; most, too, depend entirely for their support on voluntary contributions.

Shortage of accommodation for all these types of patients, and for the mentally ill, results in pressure upon general hospital facilities. More beds for the chronically ill, for convalescents and for senile patients in institutions adapted to their special needs would not only be better for the patients themselves, but would result in the liberation of many hospital beds for more acute patients.

For patients suffering from contagious diseases, there are only 13 hospitals in all Canada, with a total capacity of 1,608 beds. A number of general hospitals have a few isolation rooms where such patients can be kept, but these are too few in number and frequently lack proper equipment for adequate isolation.

Lack of facilities for such patients is due in part to the fact that intermittent patronage and the special care required make such provision costly; and possibly in part to the fact that responsibility for providing hospital facilities for contagious diseases has generally been placed upon the municipalities.

Although the need for general hospital accommodation would be decreased through the provision of better facilities for care of special patients, additional general hospital beds are required in many sections of the country.

Availability of Accommodation

The availability of hospital accommodation is related to geographic and economic factors. The first of these involves the problem of bringing the hospital and the patient together, and the second is the problem of paying the cost of care.

Bringing the Patient and Hospital Facilities Together

Modern methods of communication and transportation, together with the development of specialized treatment procedures necessitating care by trained personnel in well equipped hospitals, have led to a new conception of bringing the patient and the hospital facilities together. This involves the construction of hospitals in districts not adequately served in terms of their particular needs, the setting up of outposts for emergency and less complicated work, facilitation of the transportation of patients to hospitals through the improvement of roads and the extended use of airplanes.

The extension of diagnostic facilities for both rural and urban areas, and the development of nursing programmes are also directly related to the problem of bringing patients promptly to the hospital for care.

MEETING THE COST OF CARE

Costs of treatment in the relatively small number of private hospitals are met wholly through patients' fees. In some of the smaller publicly-owned municipal hospitals, full hospital treatment is provided without direct charge to residents of the municipality, the costs being met out of tax funds. In other municipal hospitals, and in all the voluntary hospitals, patients are charged for service, and those who cannot afford to pay are given care in public wards, costs for their care usually being met by the province and municipality in which they are legally resident. In the case of indigent patients, a means-test is imposed by the hospital, or by the responsible municipality, or both.

In addition to making per capita per diem grants for the treatment of patients, provincial and municipal governments also subsidize hospitals in a variety of ways, including tax exemptions, direct lump-sum grants, the payment of deficits and the guarantee of debentures.

Apart from capital expenditures, provincial and municipal contributions to operating revenue of Canadian hospitals amounted to more than $11,383,000 in 1943. At the same time, this was less than one-fifth of the total maintenance expenditures, which were met principally by contributions from paying patients. Expenditure of public (acute disease) hospitals in Canada is shown in Table 25, together with an analysis of sources of funds.

TABLE 25—EXPENDITURE AND SOURCE OF FUNDS OF GENERAL PUBLIC (ACUTE DISEASE) HOSPITALS 1943

(Sources: Institutional Statistics Branch, Dominion Bureau of Statistics, Unless Otherwise Noted)

(thousands of dollars)

—	Total Maintenance Expenditure	Source of Funds						
		Province	Municipalities	Other Grants	Net Earnings from Patients[1]	Total Operating Revenue	Other Special and Capital Revenue[2]	Total Revenue
CANADA	59,319	4,929	6,354	361	41,843	53,487	7,144	60,631
Prince Edward Island	291	20	4	8	228	260	41	301
Nova Scotia	2,584	287[3]	83	10	1,814	2,194[3]	369	2,563[3]
New Brunswick	1,711	19	128[4]	3	1,397	1,547	150	1,697
Quebec	15,547	1,310[5]	1,520[5]	65	10,420	13,315	2,754	16,069
Ontario	19,739	820	1,858	39	14,754	17,471	1,870	19,341
Manitoba	3,498	356	666	39	2,235	3,296	200	3,496
Saskatchewan	3,712	489	874[6]	6	2,173[6]	3,542	174	3,716
Alberta[7]	4,700	544	381[8]	148	3,843	4,916	430	5,346
British Columbia	7,537	1,084	840	43	4,979	6,946	1,156	8,102

[1] Probably contains some amounts paid by municipal hospital districts.
[2] Includes provincial and municipal contributions for special and capital expenditures.
[3] Victoria General Hospital deficit of 112 as indicated in the Provincial Public Accounts has been added.
[4] A municipal statistics report of the Department of Federal and Municipal Relations shows 274 as the cost to the cities, towns and counties, of hospitals other than those providing mental and tuberculosis care.
[5] After transferring 1,200 from province to municipalities since the latter pay their share of the cost to the province.
[6] After transferring 796 paid by municipalities for patients' fees to "municipalities".
[7] As shown in the annual report of the Alberta Department of Public Health. These figures are on a somewhat different basis from those for other provinces.
[8] Tax requisitions only. The municipalities probably made other payments for indigents and to meet hospital deficits the amount of which is not known.

PROVINCIAL ORGANIZATION AND ARRANGEMENTS FOR CARE

Hospital legislation and practice has developed along different lines in different parts of the country, so that there is a considerable degree of interprovincial variation with respect to organization and arrangements for hospital care. This is described in the following summary of provincial practice.

Prince Edward Island—There is no Hospital Act in Prince Edward Island, and no per capita per diem payments are made by public authorities. The province, however, gives $6,000 annually to each of the two general hospitals in Charlottetown, and to the hospital in Summerside. The two other general hospitals in the province receive annual grants of $2,000 and $1,500 respectively from the provincial government.

Charlottetown makes annual grants of $1,500 to both of its general hospitals, and Summerside pays $600 annually to the hospital in that city. There are no convalescent hospitals in the province, and no hospital for communicable diseases. Incurable cases are given care in the Provincial Infirmary associated with the Falconwood Mental Hospital.

Nova Scotia—The provincial government contributes toward the cost of caring for all patients in Nova Scotia hospitals, while primary responsibility for the costs of indigent hospitalization rests with the municipal authorities.

Provincial aid is given to a hospital on condition that the municipality in which the institution is situated shall contribute at least $500 annually toward maintenance costs. Other conditions for provincial aid include the approval of plans and specifications, regular inspection by provincial hospital authorities, and the appointment of a representative to the governing board of the hospital.

The provincial grants are made at the rate of 30 cents per patient per diem for the first 5,000 days, until the amount to any one hospital equals $1,500. The rate is then reduced to 20 cents per patient per diem.

Municipal grants vary from the minimum to a maximum of $2.00 per patient per diem.

Nova Scotia hospital legislation includes a provision whereby the hospital may collect from the municipality in which the patient claims legal residence, leaving the municipal authority to recover the costs from the patient, his family, or the municipality actually legally responsible.

Nova Scotia maintains a general hospital under provincial authority in the city of Halifax.

No special provision for the care of contagious diseases is made outside Halifax, and there is no hospital for the care of convalescents. This latter type of patient, along with those who are incurably ill, may be given care as indigents in local poorhouses, or municipal homes.

New Brunswick—No per diem grants are made for patients in general hospitals in New Brunswick, aid from the province to the various institutions being given in the form of lump sum grants, which amount to some $20,000 annually. Municipalities are responsible for all patients unable to pay for hospital maintenance. Fees for such cases are chargeable at the average per diem cost for the current or immediately preceding year. In addition, a few municipalities make small grants to local hospitals.

There is no convalescent hospital in the province, but care for indigent convalescent patients, and for the incurably ill, may be provided in local institutions for the poor.

Quebec—Inspection of hospitals and administration of grants is under the direction of the Provincial Department of Health and Social Welfare. While municipal hospitals exist in Quebec, most institutions are operated by private bodies, usually religious orders. The cost of caring for indigent patients is met through equal contributions by the province, the responsible municipality, and the hospital authority. These grants, made in accordance with the Public Charities Act, are given on a sliding scale for each type of hospital, according to the care provided for patients.

General hospitals receive grants varying from $1.00 to $1.50 per patient per day from both the province and the municipality in which the indigent person is domiciled. These hospitals are paid the highest rate for their respective classes for all hospitalization not exceeding one hundred days, and a lower rate for each additional day.

Convalescent hospitals receive grants of 67 cents from both the province and the municipality for the first 50 days for each patient, 50 subsequent days being paid for at 50 cents a day.

Grants for incurables are at a daily rate of 75 cents during medical treatment, 50 cents a day being paid by the province and by the municipality for each patient cared for as a chronic case.

For the confinement of indigent unmarried mothers in maternity hospitals, the provincial and municipal authorities each contribute $1.00 per patient per day for 20 days. Children's hospitals and crèches receive grants from both governments varying from $1.00 (in the case of special surgical treatment) to 30 cents, while grants to hospitals for infirm children are at the rate of 50 cents a day.

Indigent patients in hospitals for contagious diseases are paid for on the basis of $1.50 a day from both provincial and municipal governments.

Hospitals which specialize receive grants for indigent patients at the rate of $1.50 per day for the first 60 days, $1.00 for the 60 days following, and 67 cents for the balance of the patient's stay, equal grants being made in each case by the province and by the responsible municipality.

Ontario—General hospitals, convalescent hospitals and hospitals for incurables are administered in Ontario by voluntary or local public authorities under the supervision of the Hospital Branch of the Provincial Department of Health.

The province pays 75 cents per diem for the first 60 days' treatment of an indigent patient in a general hospital, and 50 cents daily thereafter. The municipal rate for indigents is fixed by statute at $2.25 a day.

An Order in Council, effective January 1, 1945, provides for an increase of 15 cents a day in the provincial grant when the municipality concerned has agreed to pay 25 cents a day voluntarily for indigents, in addition to the statutory rate.

Grants for indigent patients in general hospitals from districts without municipal organization are made by the province at the rate of $2.75 per patient per diem.

In cases of indigency, care of newborn babies in general hospitals is paid for by the province at the rate of 30 cents a day for 14 days, the municipal grant being fixed at 60 cents a day. Cases from unorganized territory are paid for by the province at the rate of $1.00 a day for 14 days.

Grants for indigent patients in convalescent hospitals are made by the province at the rate of 40 cents a day, while municipalities pay $1.25 per patient per day for their residents. The province pays $1.65 for residents of unorganized districts.

Hospitals for incurables receive per patient per diem payments of 50 cents from the province and $1.50 from the municipality responsible.

Manitoba—Hospital grants given through the Hospitals Division of the Manitoba Department of Health and Public Welfare are conditional on a minimum capacity of fifteen beds. Grants are paid by the province at the rate of 50 cents per patient per diem for public ward patients, the municipal grant being set at the average cost of public ward care for the preceding year, provided the sum does not exceed $2 per diem. For newborn babies born in hospitals, the province pays 25 cents a day and municipalities $1.

Municipalities are required, after three weeks' written notice, to pay $2 per patient per diem for the care of indigent incurables and cases unsuitable for hospital treatment.

Saskatchewan—Provincial grants to hospitals in Saskatchewan are made for every patient through the Provincial Health Department. Hospitals are graded, and per diem grants vary from 30 cents to 50 cents per patient.

Municipalities are required to pay $2.50 per diem for indigents admitted at the request of the municipality, or, in cases of emergency, without request.

Provision is also made for payment of grants under the Health Services Act, directly to hospitals or to municipalities responsible for health services. Municipalities are empowered, under the various municipal Acts, to take over, purchase or maintain hospitals, and to arrange for treatment of patients at municipal expense.

Alberta—Hospital grants, administered in Alberta under the superintendent of municipal hospitals in the provincial Department of Health, are paid for all patients at the rate of 45 cents a day for 120 days, certain exceptions being allowed as to length of stay at provincial expense. Two hospitals receive a contract grant of 90 cents per patient per diem for orthopædic and other long treatment cases.

Municipalities pay the public ward charge for indigent patients up to a statutory maximum but make no statutory grants for all patients comparable to those made by the province.

British Columbia—Grants, administered by the Provincial Board of Health, are made in British Columbia to hospitals complying with the Hospitals Act. Aid to hospitals takes the form of per capita grants based on a graded schedule varying from 70 cents to $1.25 per day.

The grant is paid in respect to all patients, whether indigent or not, and hospitals receiving such grants may not refuse to admit any patients on account of their indigent circumstances. The municipal grant is set at 70 cents per day for the treatment of all patients who are legally resident in the municipality.

SOURCES:
Brief of the Canadian Hospital Council to the House of Commons Special Committee on Social Security, April 9, 1943.
Provincial Departments of Health.
Dominion Bureau of Statistics.

8. SPECIAL SERVICES

PROFESSIONAL TRAINING, PUBLIC HEALTH RESEARCH, CRIPPLED CHILDREN AND CIVILIAN BLIND

PROFESSIONAL TRAINING

In their submissions to the Select Committee on Social Security of the House of Commons and to the Advisory Committee on Health Insurance many of the professional groups have pointed out the lack of, and the need for, trained personnel in the extension of public health services and for the introduction of health insurance.

In a statement of the supply and distribution of physicians in Canada (estimate as at July, 1945) the Canadian Medical Procurement and Assignment Board has supplied factual data on this subject.

General Trend—The number of physicians in Canada slightly more than doubled in the forty years from 1901 to 1941. While this was a substantial increase, the supply of physicians barely kept pace with the growth of the population.

Table 26 relates the growth of population to the increase in physicians in Canada for the census years 1901 to 1941. The physician and population figures for 1941 include both civilian and armed forces.

TABLE 26—PHYSICIANS AND POPULATION IN CANADA—CENSUS YEARS 1901 TO 1941

Year	Physicians[1]	Population	Population per Physician	Physicians per 1000 Population
1901.....	5,475	5,323,967	972	1·03
1911.....	7,411	7,191,624	970	1·03
1921.....	8,706	8,775,804	1,008	0·99
1931.....	10,020	10,362,833	1,034	0·97
1941.....	11,489[2]	11,489,713[2]	1,000	1·00

[1] Excluding retired physicians.
[2] Including both civilian and armed forces.

It will be noted that remarkably little change occurred in the population-physician ratios during this forty-year period. The fact that a population-physician ratio is now the same or different from what it was twenty or thirty years ago is only one indication. It must be considered along with other factors. For instance, transportation facilities are now much improved and a physician can accomplish much more in any area now than formerly. On the other hand, utilization of and demand for medical care is greater now than it was twenty years ago.

National Health Survey, March, 1943—The supply of Canadian physicians was surveyed in March, 1943, by the Canadian Medical Procurement and Assignment Board. In the Report of that survey, 12,245 physicians

were recorded, of whom 3,006 were serving in the armed forces, and 9,239 were in civilian life in Canada. The 9,239 civilian physicians included 8,624 active and 615 retired physicians.

Supply of Physicians, July, 1945—A survey of the supply of physicians has been made from the records of the Canadian Medical Procurement and Assignment Board in July, 1945. This survey indicated a total of 13,275 Canadian physicians, which included 8,843 active and 578 retired civilian physicians, and 3,854 medical officers in the three armed forces.

Net Increase of Civilian Physicians since March, 1943—There has been a net increase of 219 active physicians in civilian medical services from March, 1943, to July, 1945. This increase of active civilian physicians is over and above the loss of active physicians through deaths, retirement, emigration, etc. It may be accounted for principally by medical graduates who did not enlist in the armed forces, medical officers struck off strength from the three armed forces who returned to civilian practice and medical officers in the armed services who have been seconded to meet urgent civilian needs.

It is estimated that as high as 15 per cent of medical graduates since March, 1943, have not entered the armed services. For example of the 521 medical graduates from Canadian universities in 1944, 109 had not enlisted as privates under the Army enlistment plan for medical students. This number included, for the most part, students of low medical category, female medical students and foreign-born students. It is considered that a large percentage of those who did not so enlist are providing civilian medical services in Canada.

The armed services have struck off strength upwards of 500 medical officers since March, 1943. While some of these medical officers are now retired or physically unable to carry on civilian practice, a large proportion have returned to civilian medical employment. For instance, in 1944, the R.C.A.M.C. in Canada struck off strength 168 medical officers and a check of these revealed that upwards to 90 per cent are now employed in the medical profession as civilians.

Since March, 1943, the civilian supply of physicians has been supplemented by medical officers seconded from the armed services. Under Order in Council 75/2247, dated April, 1945, 32 medical officers in the armed services are presently seconded to civilian communities and institutions, urgently in need of medical services.

Future Supply of Physicians—The future supply of physicians in Canada will be determined by a number of factors including the output of medical schools, immigration and emigration, the repatriation of foreign-born students, deaths and retirements.

Output of Canadian Medical Faculties—The supply of physicians in Canada is primarily dependent upon the facilities in the country for educating and training physicians. At the present time there are nine medical faculties from which doctors are graduated.

The National Health Survey reviewed the trend of the output of these medical schools over the past twenty-five years. An average of 526 students graduated annually from these nine medical schools during the twenty-year period 1925 to 1944, while in the four-year period 1936 to 1939 an average of 491 students graduated annually.

Table 27 provides information on the number of graduates in the years 1940 to 1947. Figures for 1945, 46, and 47 are estimates.

TABLE 27—NUMBER OF GRADUATES OF CANADIAN MEDICAL FACULTIES, 1940-1947

University	1940	1941	1942	1943	1944	1945[1]	1946[1]	1947[1]
Alberta.....	35	37	46	69	37	33	40	—
Dalhousie...	35	42	42	73	32	43	—	28
Laval.....	49	51	67	101	54	65	100	90
Manitoba...	45	62	54	51	59	110	62	—
McGill.....	162	86	89	191	92	101	—	108
Montreal....	48	53	51	103	48	56	47	78
Queen's.....	58	44	39	93	40	44	40	46
Toronto....	138	138	114	209	125	118	134	128
Western....	29	30	36	61	34	33	37	36
TOTAL....	599	543	538	951	521	603	460	514

[1] Estimated number of graduates.

A comparison of the average output for the four pre-war years (491 students annually) with the average output of the war years, 1940 to 1945 (626 graduates annually) indicates the increase in the output of medical students during the war years.

The introduction of accelerated time-tables by medical schools resulted in a substantial increase in medical graduates in 1943. The accelerated programme did not mean an increase in the number of students enrolled in medical schools. Approximately the same number of medical students were trained under this programme as formerly, but they were trained in a shorter period of time.

While the accelerated programme increased the supply of physicians temporarily by speeding up the training through the reduction of vacation periods, the additional number of graduates gained under the plan will be lost within the next few years. Various medical schools will have a year when there will be no graduating class. For instance, there will be no medical graduates from Dalhousie and McGill Universities in 1946, while in 1947 Alberta and Manitoba Medical Faculties will have no graduates.

While there has been a substantial rise in the output of physicians in Canada during the six-year period 1940 to 1945 (an average of 626 annually), there will be a reduction in this level of output in 1946 and 1947 (460 graduates in 1946, 514 graduates in 1947 or an average of 487 annually).

The R.C.A.M.C. enlistment plan was modified on January 1, 1945. At that date further enlistments under the plan were discontinued. However, in view of the fact that the total period of enlistment under this plan may be twenty-eight months, there was a substantial number of medical students and internes enlisted prior to that time.

Approximately 854 medical students were enlisted as privates in the R.C.A.M.C. enlistment plan as at June 30, 1945. This includes 199 who will have completed their interneship and training at medical school in the last six months of 1945, 498 who will be available in 1946 and 157 who will be available in 1947.

It will be noted in Table 27 that there will be 460 graduates in 1946, while 498 will be available for commissioning in that year. The difference between these two figures is caused by the fact that the type of interneship varies for medical graduates in different medical schools. Some interneships are under-graduate and some post-graduate. The 498 figure includes some 1945 graduates and some 1946 graduates.

Medical Officers in the Armed Forces—As at June 30, 1945, there were 3,854 medical officers serving in the Canadian armed forces. This number included 406 medical officers in the Navy, 2,748 in the Army, and 700 in the Air Force.

The physicians in the armed services make up a large reservoir of trained medical manpower which will be released for re-employment in civilian medical services as the exigencies of the three armed services permit. Numerically this supply of physicians is roughly equivalent to the output of Canadian medical schools for seven years.

Deaths of Physicians—The number of physicians in Canada is reduced each year by deaths. There was an average of 220·4 deaths of physicians annually in the five-year period 1939 to 1943. Table 28 provides information on deaths of Canadian physicians by age groups for the years 1926 to 1943 inclusive. This supplements the information provided in the National Health Survey which set forth this data for the years 1926 to 1940.

TABLE 28—DEATHS OF PHYSICIANS BY AGE GROUP—1926 TO 1943

(Source: Figures supplied by Dominion Bureau of Statistics)

Year	20-24	25-34	35-44	45-54	55-64	65-74	75 and over	Total
1926....	—	7	21	32	41	34	24	159
1927....	—	14	12	18	45	39	23	151
1928....	—	10	14	35	43	35	43	180
1929....	—	2	12	32	40	66	35	187
1930....	1	11	12	32	41	39	37	173
1931....	—	8	15	41	44	44	29	181
1932....	—	8	11	22	43	54	39	177
1933....	—	7	14	21	42	56	44	184
1934....	1	7	8	18	59	61	39	193
1935....	—	12	10	28	61	57	45	213
1936....	—	6	9	17	56	48	46	182
1937....	—	8	13	32	50	46	54	203
1938....	—	5	12	27	63	66	53	226
1939....	—	8	12	22	66	64	43	215
1940....	—	2	14	31	47	72	62	228
1941....	—	4	16	25	46	72	67	230
1942....	—	4	19	20	59	72	43	217
1943....	—	6	11	32	50	64	49	212

Immigration and Emigration—The National Health Survey estimated the loss of trained medical personnel in pre-war years through the repatriation of foreign-born students to be between 5 and 10 per cent of the output of Canadian medical schools. The number of foreign-born medical students varies from one medical school to another. A large proportion of these medical students return to their own country after graduation. The number of these students has been slightly lower during the war years than in pre-war years.

The National Health Survey pointed out that there is a considerable amount of emigration of Canadian physicians, principally recent graduates from medical schools. The number of medical immigrants has always been below the number of physicians emigrating. Accordingly, in pre-war years, there was a drift of physicians away from Canada. While no precise figures were available, the National Health Survey estimated loss by emigration to be the equivalent of not less than 10 per cent of medical school output.

The application of labour exit permit control in October, 1942, for the purpose of prohibiting persons essential to the war effort, from leaving Canada, checked the loss of physicians through emigration. Since that time movement of physicians into and out of Canada has been small. However, if the experience of pre-war years is repeated in the post-war years there will be a considerable loss of physicians through emigration.

Retirements—The National Health Survey of March, 1943, recorded 615 retired physicians (or 6·6 per cent of the 9,239 civilian physicians, including 10 physicians in Northwest Territories). Records available for July, 1945, show 578 retired physicians (6·1 per cent of the 9,421 civilian physicians). It would appear that very little change has taken place in the size of the retired group.

There is a wide variation by provinces in the average number of square miles to be served by each physician.

The following figures are illustrative of the situation in July, 1945:

	Square miles per physician
Prince Edward Island	39
Nova Scotia	54
Ontario	108
New Brunswick	127
Quebec	169
Manitoba	468
British Columbia	510
Alberta	529
Saskatchewan	573

Details and tabular material as to the distribution of physicians by province, county, district or census division, and by cities and towns are to be found in the report.

PUBLIC HEALTH RESEARCH

Public Health Research in the main has been neglected in Canada. Very few provinces have been in a position to pay much attention to the subject and very little was carried on by the Department of Pensions and National Health. Many of the submissions to the Government have pointed out the need for a comprehensive programme of research in regard to public health problems and particularly for field studies in public health.

The high mortality rates of certain diseases indicate that there are many health problems that require to be investigated in order that active steps may be taken for their solution. Some of these problems are interprovincial and international in nature and the provinces have no jurisdiction or means to study them without assistance and proper coordination. Noteworthy among these problems are maternal and infant mortality, sili-

cosis, Rocky Mountain spotted fever, sylvatic plague, tularæmia, encephalitis, poliomyelitis, trichinosis and others. Unless the Dominion assumes some responsibility for providing the means to investigate these problems they will remain uncontrolled and present an ever present danger.

The Social Security Act of the United States provides an annual appropriation of $2 million for research activities to the United States Public Health Service for the expense of cooperation with the States in this connection. It is stated that the need in Canada is as great as in the United States and that as diseases and disabilities are not confined to local areas the Dominion should provide some leadership and funds in the field.

In a submission to the Committee on Social Security on May 21, 1943, the Canadian Public Health Association stressed the need for more adequate provision for medical research in Canada as follows:

"THE IMPORTANCE OF MEDICAL RESEARCH TO HEALTH INSURANCE"

"When health insurance was introduced in Great Britain in 1911 provision was made that a small part of each contributor's annual payment should constitute a fund for the advancement of medical research. As a result of this foresighted provision the Medical Research Council of Great Britain was established, the National Institute for Medical Research organized, and great progress made in medical research in the British Isles. As the years have passed, additional funds have been made available, which is ample evidence of the recognition of the value of this investment.

Little provision is made by the Dominion Government to further medical research in the universities and hospitals in Canada, apart from limited funds made available during the past few years through the National Research Council of Canada. The work of the Associate Committee on Medical Research organized in the National Research Council just prior to the war, has demonstrated the importance of leadership in this field, as well as the need for greatly increased funds to support research. It will indeed be a most serious loss if in the provisions of national health insurance, no provision is made for medical research in Canada. Only by advances in our knowledge can more effective treatment and prevention be accomplished and health insurance be made economically possible and effective in its objective of better health for the people of Canada."

CRIPPLED CHILDREN

The Director of Public Health Services of the Department of National Health and Welfare, in December, 1944, estimated that there was a total of 50,000 children in Canada suffering from crippling conditions.

The Manitoba Department of Health has begun a registration of crippled children and found that one per thousand is crippled. There are, in that province, a total of 734 children for whom remedial action would bring beneficial results.

The provinces, generally, have not made a great deal of provision for the care and training of crippled children. This has been left to the interest of voluntary organizations almost entirely. Opportunities for care and training for a child who has had the misfortune to be crippled are provided in some provinces. However, there is no part of Canada in which the facilities for crippled children's work are completely satisfactory.

A crippled children's programme for Canada has been suggested, to comprise a number of services which may be briefly visualized as follows:

1. The determination of the extent of the problem through surveys conducted by provincial departments and organizations interested in locating crippled children and, in particular, those living in rural areas. In this respect the establishment of a recording and reporting system would be of value.

2. The provision of clinics in cooperation with provincial and municipal officers, doctors, nurses, hospitals and parents. For this purpose the provision of free transportation and free appliances would prove of value.

3. The promotion of a campaign to provide for education of the physically handicapped, including instruction in the home and in open air camps, would help in the solution of the problem.

4. Cooperation with schools, training agencies, local groups and rehabilitation services to provide vocational training, including funds for transportation, board and room, equipment and appliances while undergoing such training, would be of material help.

5. Job placement with the assistance of employment services, rehabilitation services, training agencies and employers and local groups for the placement of the physically handicapped is of extreme importance. Provision should be made to arrange for sheltered workshops and for shut-ins.

6. A Directory of Services for Crippled Children listing all agencies and organizations rendering service to the crippled, together with a description of such service, should be created.

The Canadian Council for Crippled Children was organized in 1937 to act as a unifying national link between organizations actively engaged in the care of crippled children.

There are private organizations responsible for coordinating the work for crippled children in six of the provinces. At July 1, 1943, there were hospitals in seven provinces possessing facilities for the treatment of orthopædic cases. The distribution of these was:

—	Private Organizations	Hospital Treatment Facilities
Prince Edward Island	1	–
Nova Scotia	1	1
New Brunswick	1	–
Quebec	1	8
Ontario	1	14
Manitoba	–	5
Saskatchewan	–	6
Alberta	1	2
British Columbia	–	2

Financial Assistance for Care of Crippled Children

Prince Edward Island—Red Cross Society undertake financial responsibility for indigent cases.

Quebec—Indigent cases are admitted to hospital under the Quebec Public Charities Act.

Ontario—The municipality of residence pays $1.75 and the Provincial Government pays 60 cents per day for indigent cases. Local service clubs frequently pay hospitalization charges.

Manitoba—Shriners' Hospital accepts patients free of charge. Others are paid by provincial and municipal grants.

Saskatchewan—Municipality of residence, Red Cross and Shriners' Hospital of Winnipeg accept payment for indigent cases.

Alberta—The Province of Alberta pays for public charges. Cases admitted to the Junior Red Cross Crippled Children's Hospital are paid for by the Red Cross.

British Columbia—Per diem grant of 70 cents from Provincial Government up to 300 days; municipal per diem grant in certain instances. In the Crippled Children's Hospital, payment is maintained by Vancouver Welfare Federation.

CIVILIAN BLIND IN CANADA

The number of known blind in Canada, of all ages, totals 12,344 representing those registered with the Canadian National Institute for the Blind and those on Pension to the Blind. Apart from these, there is a very large group comprising those with loss of vision in one eye, or with some progressive type of eye disease, who do not as yet come within the definition of blindness as stated in the Act, together with some who have not made their condition known and whose names have not been brought forward. The definition of blindness is contained in the Dominion Old Age Pensions Act, and the principles to be applied in determining such conditions are found in Regulation 41 of the Regulations made pursuant to the Act. Section 42 of the Act states:

"An application for a pension in respect of blindness may be made at any time after the proposed pensioner has reached the age of thirty-nine years and nine months".

In Table 29 the total number of blind is given according to age groups comparable with those in the Beveridge Report. The greater discrepancies in groups 2, 3, 4 and 5 are probably due to the more stringent definition of blindness used in England as compared with Canada.

TABLE 29—THE BLIND IN CANADA, JANUARY, 1943 BY AGE GROUPS

Age Group	Number	% of total Canada	% of total England (Beveridge report)
1. Under 5 years	13	0·11	0·3
2. 5 to 15 years	314	2·54	1·9
3. 16 to 39 years	1,977	16·02	12·5
4. 40 to 49 years	1,441	11·67	10·2
5. 50 to 69 years	5,177	41·94	38·8
6. 70 years and over	3,422	27·72	36·3
Total	12,344[1]	100·00	100·0

[1] Males 7,118, females 5,226.

Of those shown above who are 40 years of age and over, 6,386 are pensioned under the Act. Their distribution by provinces is given in Table 30.

TABLE 30—DISTRIBUTION OF BLIND BY PROVINCES, JANUARY, 1943

Population 1941 Census	Province	Number on Pension	Rate per 1,000 population (Pensioners)	Not eligible
11,404,548	Canada	6,386	0·56	2,135
93,919	Prince Edward Island	113	1·20	33
573,190	Nova Scotia	621	1·08	179
453,377	New Brunswick	755	1·67	640
3,319,640	Quebec	2,118	0·64	871
3,756,632	Ontario	1,516	0·40	261
722,447	Manitoba	373	0·52	32
887,747	Saskatchewan	320	0·36	37
788,393	Alberta	238	0·30	18
809,203	British Columbia	332	0·41	64

NOTE—The higher ratio of blind per 1,000 population in the Eastern Provinces may be due to the fact that they are the oldest settled parts of Canada, from which many young people have migrated West and to the United States.

From Table 30 it is seen that as of January 1, 1943, there were 6,386 pensioners representing, at $240 per annum, a total expenditure for the previous year of $1,532,640, the cost being distributed on the ratio of 75 per cent to 25 per cent between Federal and provincial governments.

There are also 2,135 who have applied for pension but were found to be "not eligible" because they are not sufficiently blind to qualify. Most of them will qualify within a few years, representing a possible further annual expenditure of $512,400 quite apart from the usual increase. It is among such applicants that treatment would be most beneficial.

Although the blind are grouped under the Old Age Pensions Act, the financial commitment is in no way similar since some of the blind pensioners may receive financial aid for thirty or forty years. Prevention of blindness becomes therefore a first essential, with treatment and care second, and finally careful pre-pension selection. Under the Old Age Pensions Act dealing with the blind there is no provision for either treatment or prevention and consequently there are many drawing pensions who could be removed from the rolls by adequate treatment. Starting in 1942 information on this aspect was collected on 534 applications:

APPROVED FOR PENSION—356

Number of cases where treatment might restore useful vision ..... 129 or 36%
No treatment recommended ..... 227 or 64%

NOT YET ELIGIBLE—178

Number of cases where treatment would prevent or delay blindness ..... 124 or 70%
No treatment recommended ..... 54 or 30%

Thus 30 per cent of those awarded pensions were at the time of the award considered curable to the point of restoring useful vision by treatment. Seventy per cent of the group not yet eligible could have their blindness delayed or its possibility removed by proper care.

Health departments are already deeply involved in the prevention of blindness, even though their legislation was not planned primarily for that reason, except in the instance of preventive drops for ophthalmia neonatorum. The other endeavours that are preventive in character are: venereal disease control, the distribution of Insulin to those unable to pay, prevention and control of tuberculosis, nutrition measures, control of all types of infectious diseases, school medical inspection and the provision of sight-saving classes, and accident prevention.

It may be desirable to place the whole problem of blindness, both prevention and treatment, in the hands of the departments of public health. Not with the expectation that they would maintain treatment centres but that they should undertake to provide direction, probably under some pre-arranged plan of payment in order that those who could be helped by treatment should not go without because of technicalities and eventually become a total charge on the State.

At the present time there is no arrangement whereby the Provincial Old Age Pensions authority may provide treatment to restore sight where it is thought possible by the oculist, or to apply treatment for those with failing vision who may become a total charge on the State if left untreated.

Payment of pensions to blind persons is limited by the Act to people who have reached the age of forty years. The young person with the aid of treatment might become self-supporting while experience has shown that if nothing is attempted until the blind are past middle life very little can be done from the standpoint of rehabilitation largely because of lost initiative and vigour.

It is considered sound that pensions should be linked with treatment and training and given only when the other two fail, and that the age limit should be lowered to twenty-one years or even less, considering that the blind or partially sighted have either no or a greatly reduced earning capacity until trained.

The employability of the 1,631 registered blind between ages of 20 and 40 years as provided by the Canadian National Institute for the Blind, is as follows:

Blind males, employed	400	
" " partially employed	468	
" " unemployable	153	
Blind females, single, employed	150	
" " " partially employed	230	
" " " unemployable	67	
Blind females, married, employed	15	
" " " partially employed	124	
" " " unemployable	24	1,631

Unemployable group includes:

Unemployable, mental	142	
" other	102	244

The above indicates the high employability of the blind between the ages of 20 and 40.

Much is now understood concerning the causes, prevention and treatment of blindness. What remains is the integration and application of this knowledge under the proper department of government.

Sources:

"Supply and Distribution of Physicians in Canada", Canadian Medical Procurement and Assignment Board, Ottawa, 1945.

Report of the Advisory Committee on Health Insurance.

Minutes of Proceedings and Evidence, the Special Committee on Social Security.

"The Blind in Canada", F. S. Burke, M.D.

9. HEALTH INSURANCE

Health Insurance is simply a plan to assure that a person's medical care is not limited by his or her financial resources and the pooling of costs resulting from the plan. When it is operated as a government or state measure it usually implies compulsory payments by or on behalf of the persons in the class or area covered. The payments may be in the form of specified contributions, a special tax, general taxation or a combination of two or all of these forms.

Movements in the direction of modern state health insurance plans appeared towards the middle and latter part of the 19th century in Western and Central Europe where the existing voluntary institutions were used as the basis of organization. The voluntary institutions were self governing mutual benefit societies the membership of which was drawn in varying degrees of coverage from workers in particular occupations or undertakings or irrespective thereof in a particular locality.

A compulsory system of health insurance covering all employed persons aged 16 to 65, with the exception of non-manual workers whose annual remuneration exceeded £160, and certain casual and unpaid workers went into effect in Great Britain and Ireland in 1912 following the passage of the National Insurance Act of 1911. The Act has been frequently amended since that time and in 1938 the scope was extended to cover all young persons over the school leaving age who become insurably employed. In 1919 the salary limit for non-manual workers was raised to £250 and in 1941 to £420. The care of a general practitioner acting as family doctor, the medicines prescribed by him, and certain appliances are available free of charge to these employees, but not to their dependents. Proposals for comprehensive medical care service available to everyone, irrespective of means, age, sex or occupation, were embodied in a White Paper presented to Parliament by the Government, for the purposes of discussion, in February, 1944. The principles of the plan were subsequently debated, but they have not yet been implemented through legislation.

Under New Zealand's Social Security Act which went into effect on April 1, 1939, coverage is general but at the outset health benefits were limited in character. Maternity benefits were provided first and at present medical services, hospital, pharmaceutical and certain supplementary benefits (X-ray, massage, etc.) are provided.

In Canada the many aspects of health insurance have been subjects of serious study and discussion over a period of at least thirty years by national and regional organizations such as labour groups, agricultural groups,

women's organizations (rural and urban), medical associations, health officers and others interested in public welfare. As under the provisions of the British North America Act, health insurance is considered to be primarily a responsibility of the provinces it is perhaps natural that the first active step towards the institution of a government health insurance plan should have been taken by a province. In 1919 British Columbia appointed a Royal Commission to investigate the subject. Another Royal Commission to study health insurance and maternity benefits was appointed in 1929; as a result of the reports of these Commissions a health insurance Act was passed in 1936 but did not go into effect.

In Alberta as a result of the reports of Committees appointed in 1928 and 1932 a Health Insurance Bill was introduced and passed by the Legislature in 1935 but has not gone into effect.

Legislation in Saskatchewan as early as 1919 and in Manitoba in 1920 enabled rural municipalities, and to a limited extent the towns and villages, to provide medical care and to spread the cost over the areas in which the service was given. This enabling legislation, commonly called "The Municipal Doctor Plan" was put into effect in a considerable number of rural areas in these provinces.

There has been considerable development in Canada in the provision of prepaid hospital care and ancillary services through group hospital plans. Some of these are purely local in character, while others such as the "Blue Cross" hospital plan cover wide areas. The costs of service under this plan for standard ward care are 50 cents per month for single persons and $1 per month for a family unit, including only children under sixteen. These have been in existence for over thirty years. Most of them are limited as to the amount of services and include conditions as to the length of time during which such services are provided.

DOMINION

The question of Health Insurance for the Canadian people has been discussed on a number of occasions in the Parliament of Canada. On March 21, 1928, the House of Commons adopted a motion:

> "That, in the opinion of this House, the Select Standing Committee on Industrial and International Relations be authorized to investigate and report on insurance against unemployment, sickness and invalidity."

On May 1, 1929, this Committee in its second report made the following recommendations:

"(*a*) That with regard to sickness insurance, the Department of Pensions and National Health be requested to initiate a comprehensive survey of the field of public health, with special reference to a national health programme. In this, it is believed that it would be possible to secure the cooperation of the provincial and municipal health departments, as well as the organized profession.

"(*b*) That in the forthcoming census, provision should be made for the securing of the fullest possible data regarding the extent of unemployment and sickness, and that this should be compiled and published at as early a date as possible."

The Dominion Council of Health in May, 1932, passed a resolution urging that the recommendation contained in clause (*a*) be implemented.

On June 6, 1935, the Dominion Government passed the Employment and Social Insurance Act authorizing the appointment of an Employment and Social Insurance Commission for the purpose of assembling information regarding health insurance plans and reporting thereon, and it was authorized to submit to the Governor in Council proposals for cooperation by the Dominion in providing benefits. The Act was submitted to the Supreme Court of Canada and was found to be unconstitutional. This judgment was affirmed by the Privy Council.

In June, 1941, under direction of the Minister of Pensions and National Health a report of deficiencies in the field of public health and medical services in Canada was prepared by the Director of Public Health Services and presented by him to a general meeting of the Dominion Council of Health and representatives of national voluntary health organizations. As a result of these discussions a study of public health and medical services was undertaken with the object of formulating a health insurance plan.

In October, 1941, the Canadian Medical Association formed a Committee on Health Insurance to assist the Director of Public Health Services in the preparation of a tentative draft plan for public health and health insurance.

Advisory Committee on Health Insurance

On February 5, 1942, the Dominion Government by Order in Council authorized the formation of an Advisory Committee on Health Insurance consisting of officials of several Departments of the Government under the chairmanship of the Director of Public Health Services of the Department of Pensions and National Health. The terms of reference given to the Committee were

> "to study all factual data relating to health insurance and report thereon to the Minister of Pensions and National Health".

With the object of surveying the Canadian scene, studying the needs of the country and drawing up a plan incorporating the needs of the people, health insurance committees of organized professional and lay groups were formed. These included the Canadian Medical Association, the Canadian Dental Association, the Canadian Hospital Council, the Canadian Nurses Association, the Catholic Hospital Council of Canada, the Canadian Public Health Association, the Canadian Pharmaceutical Association, the National Council of Women, the Canadian Welfare Council and the Canadian Association of Social Workers, the Trades and Labour Congress of Canada, the Canadian Federation of Agriculture, the Canadian Manufacturers Association and the Canadian Life Insurance Officers Association. The majority of these organizations made direct recommendations approving the principle of health insurance.

The Advisory Committee continued its deliberations which resulted in the preparation of a draft Health Insurance Bill, which was presented to the General Council of the Canadian Medical Association in Ottawa on January 18, 1943, at which time the Council went on record as favouring the principle of health insurance.

Special Committee on Social Security

The report of the Advisory Committee on Health Insurance included a draft Health Insurance Bill and was presented to the Special Committee on Social Security appointed by the House of Commons on March 16, 1943.

This report contains a comprehensive review of the development of health insurance. The outline which follows indicates the nature of the subjects covered in the report and a page reference thereto.

Part II of the Report presents a "Historical Survey" in which Chapter II deals with "The Evolution of the Social Security Idea" under the following sub-headings:

Chapter III of the Report deals with "The Rise of Health Insurance" under the following sub-headings:

Chapter V of the Report deals with the "Growth of the Movement in the United States" under the following sub-headings:

Part III of the Report presents a résumé in Section 1 of the "Voluntary Schemes"—page 81—and in Section 2 of the "Compulsory Schemes"—page 93—in various countries. Complete details are given regarding:

The Committee on Social Security heard 117 witnesses representing 32 groups, including the health insurance committees which had appeared before the Advisory Committee on Health Insurance. All groups expressed themselves generally in favour of the principle of health insurance.

After discussing the draft Bill, the Special Committee on Social Security made the following report to the House of Commons on July 23, 1943:

> "The Committee approves of the general principles of health insurance set forth in the Health Insurance Bill respecting public health, health insurance, the prevention of disease and other matters related thereto.
>
> "The Committee recommends as follows:
>
> 1. That before the Bill is approved in detail or amended and finally reported, full information regarding its provisions be made to all the provinces.
> 2. That to provide this information, officials of the various Government departments concerned be instructed to visit the various provinces and to give full details of the proposed legislation to the provincial authorities.
> 3. That, if possible, before the next session of Parliament a conference of representatives of the Governments of the various provinces and the Dominion be held to discuss certain complex problems involved, especially financial and constitutional questions.
> 4. That in the light of all the information meanwhile obtained, study of the Bill be continued by a Committee of the House and by the Advisory Committee on Health Insurance."

The Advisory Committee on Health Insurance continued its studies as recommended, in the course of which the financial suggestions contained in the first draft Bill were revised by a sub-Committee on Health Insurance Finance. Data relating to the proposed plan of health insurance was prepared for the provinces but members of the Advisory Committee did not visit the provinces as recommended because it was considered that the financial proposals were not sufficiently complete for presentation to the provinces.

When the Advisory Committee had completed its studies a new draft Bill was placed in the hands of the Minister of Pensions and National Health and referred by him to the Special Committee on Social Security. The Bill was discussed and amended and reported to the House on July 29, 1944.

The report presenting the amended draft Bill to Parliament by the Special Committee on Social Security was as follows:

> "After a long and careful study of the subject of Health Insurance, which included the taking of evidence and the receiving of briefs from all interested organizations, your Committee presents herewith a draft Health Insurance Bill submitted by the Department of Pensions and National Health which, with minor amendments, it has approved with the exception of Clause 3 and Schedule 1, dealing with financial arrangements between the Dominion Government and Provincial Governments.
>
> "Your Committee recommends that this Bill be referred to the Dominion-Provincial Conference for consideration of its general principles as expressed in its various clauses, and of the financial arrangements involved.
>
> "Your Committee heard evidence and received briefs on other phases of social security, but they were unable to give detailed or adequate study to the whole subject, which involves also intricate financial and constitutional problems. Your Committee recommends that when possible, consideration be given to the extension of unemployment insurance, sickness cash benefits, funeral benefits and other measures which will help to provide protection against

old age, illness and economic misfortune, and to the establishment of greater coordination, and the elimination of overlapping or duplication of existing measures of social welfare under Dominion and Provincial Governments."

Conference of Ministers of Health

While the meetings of the Special Committee on Social Security were taking place, a conference of Provincial Ministers and Deputy Ministers of Health was held at Ottawa on May 10-12, 1944, to discuss the draft Bill. This was the second meeting of Provincial Ministers and their Deputies with the Minister of Pensions and National Health. The first meeting was held in September, 1942, to discuss the first health insurance proposals. Those in attendance at the second meeting approved the principle of health insurance. Doubt was expressed by some of the Ministers regarding the ability of their provinces to apply all of the benefits of the Bill at one time and also the ability of the people and provincial authorities to contribute the amounts indicated in the Bill.

Some doubt was cast upon the estimate of cost of the individual services as prepared by the Advisory Committee on Health Insurance, and a sub-Committee was formed to discuss the subject. In the main, the sub-Committee was in agreement with the findings of the Advisory Committee on Health Insurance. Subsequently, the subject of the estimated cost of dentistry, which had been questioned as being too high, was referred to the Canadian Dental Association for consideration. The Canadian Dental Association expressed the opinion that the amount allotted to dentistry was not excessive.

The discussions of the Provincial Ministers of Health and their Deputies were reported to the Special Committee on Social Security, and it was suggested by that Committee that as certain of the matters were related to finance they should be left for discussion at the Dominion-Provincial Conference.

The draft Bill as reported by the Special Committee on Social Security of the House of Commons on July 27, 1944, together with submissions expressing the opinions of the professional and lay groups regarding Health Insurance, are to be found in full detail in the Minutes of Proceedings and Evidence of the Special Committee on Social Security. The Bill gives in detail a sample organization under which a provincially-administered Dominion-sponsored plan of health insurance might be operated.

The following list sets forth the organizations and departments presenting evidence to the Social Security Committees in 1943 and 1944 together with the page reference to the Minutes of Proceedings and Evidence.

Date	No. of Proceedings and Evidence	Organization or Department Presenting Evidence	Evidence Page
March 16	1	Department of Pensions and National Health: Minister	1–40
March 19	2	Department of Insurance: Chief Actuary	46 (67–79)
		Department of Pensions and National Health: Director of Public Health Services	46–61
March 23	3	Department of Insurance: Chief Actuary	83–98
		Department of Pensions and National Health: Director of Public Health Services	99–106
March 30	4	Dominion Council of Health: Provincial Deputy Ministers of Health	107–129
		Department of Insurance: Chief Actuary	119–128
April 6	5	Canadian Medical Association	133–160
April 9	6	Canadian Tuberculosis Association	161–168 (189–195)
		Canadian Hospital Council	170–187
April 13	7	Canadian Nurses Association and allied organizations	197–215
May 7	8	Canadian Medical Association: Department of Cancer Control	217–231
		Canadian Pharmaceutical Association	231–240
May 11	9	Canadian Dental Association	241–259
		Canadian Medical Association: Industrial Hygiene Department	259–265
May 14	10	Department of Pensions and National Health: Division of Child and Maternal Hygiene (and special witnesses on maternal and child health)	267–281
		Canadian Federation of Agriculture	281–314
May 18	11	Special Witnesses on Mental Hygiene	315–330 (337–339)
		Trades and Labour Congress of Canada	330–336
May 21	12	Canadian Public Health Association	341–363
May 25	13	Sir William Beveridge	365–379
May 27	14	Special witnesses on physical fitness	381–406
May 28	15	National Council of Women,	407–408
		La Fédération des Femmes Canadiennes Françaises	408–409
		The Catholic Women's League	409–410
		Department of Pensions and National Health: Division of Venereal Disease Control	410–416 (435–438)
		(Special witnesses on venereal disease)	416–434 (506–508)
June 1	16	Christian Scientists of Canada	439-456
		Canadian Association of Optometrists	457-475
June 4	17	Dominion Council of Chiropractors	479-499
		Drugless Practitioners of Ontario	499-505
		Human Adjustment Institute	(509-510)
June 8	18	Canadian Life Insurance Officers Association	512-532
June 10	19	Canadian Federation of Agriculture	533-554
		Medical Liberty League	554-568
June 11	20	Catholic Hospitals of Canada	569-587
June 15	21	Canadian Osteopathic Association	589-612
June 16	22	National Research Council: Medical Research Committee	613-618
June 18	23	Dominion Council of Health: Committee on Civilian Blind	619-627
		Canadian National Institute for the Blind	627-644 (644-652)
June 22	24	Chiropodists of the Dominion Canadian Medical Association	653-660
		(Supplementary brief)	661-668
June 29	25	Victorian Order of Nurses	669-679
		Department of Pensions and National Health: Solicitor	679-688
July 6	26	Canadian Federation of the Blind	689-699
		Canadian Legion, B.E.S.L. (and Imperial Division, B.E.S.L.)	699-714

(No further evidence heard in 1943)

(Evidence included in appendices indicated in parentheses)

SPECIAL COMMITTEE ON SOCIAL SECURITY
1944

SPECIAL COMMITTEE ON SOCIAL SECURITY—*Concluded*
1944

Date	No. of Proceedings and Evidence	Organization or Department Presenting Evidence	Evidence Page
July 4	11	Department of Pensions and National Health:	
		Director, Public Health Services	302
		Departmental Solicitor	302
		Department of Insurance: Chief Actuary	302
		Special Witness:	
		Executive Director, Canadian Welfare Council	(303–316)
July 13	12	Special Witness:	
July 18	—	Principal and Vice-Chancellor, McGill University	320–334
July 27	13	Third Report and Draft Health Insurance Bill: No evidence heard.	

(Evidence included in appendices shown in parentheses.)

SUMMARY OF OPINIONS REGARDING HEALTH INSURANCE

Recommendations made to the Social Security Committee in 1943 and 1944 are summarized in the accompanying diagram, the most striking feature of which is the almost unanimous support given to the principle of Health Insurance by organizations presenting briefs and evidence.

Only one organization was quite opposed to Health Insurance, and another group requested exemption of its members on religious grounds.

Among those organizations bringing forward recommendations relating to administration, there was wide agreement as to the desirability of control resting with the provinces. Most of these groups favoured administration through independent, non-political commissions, a small minority only preferring to have administrative responsibility rest with Provincial Departments of Health. These groups advocated the organization, in each province, of representative boards to act in an advisory capacity only.

It was suggested by some that the Federal Government should be responsible for coordination and the establishment of standards.

Comparatively few groups made suggestions respecting financial organization. Some expressed approval of the principles of grants-in-aid from the Federal Government, and of compulsory contributions. Preference for finance through taxation rather than direct insurance contributions was expressed by a few organizations.

Support was given generally to the principle of universal coverage, although a number of groups favoured an income limit or made special recommendations.

Most organizations presenting evidence assumed medical care benefits, explicit support being given solely to this aspect of insurance by a few groups. Cash sickness benefits were recommended specifically by three organizations. Most groups appeared before the Committee to make special recommendations respecting benefits.

SUMMARY OF RECOMMENDATIONS REGARDING HEALTH INSURANCE MADE BY ORGANIZATIONS TO THE SOCIAL SECURITY COMMITTEE 1943 AND 1944

	Principle of Health Insurance					Administration						Finance						Coverage			Benefits		
	In Favour		Opposed			National			Provincial						Contributions								
		With important qualifications		With important qualifications	No opinion expressed	Department	Independent Commission	Advisory Body	Department	Independent Commission	Advisory Body	Federal Grants-in-Aid	National	Provincial	Compulsory	Voluntary	Taxation	Universal	Limited	Special recommendation	Medical Care	Cash benefits	Special recommendation
Dominion Council of Health	×								×		×	×									×		
Canadian Medical Association	×					×		×		×	×	× ×			×					× ×	×		
Canadian Tuberculosis Association	×											× ×								× ×			
Canadian Hospital Council	×							×	○	○		×			×			×		×			×
Canadian Nurses Association and allied organizations	×																						× ×
Canadian Pharmaceutical Association					×																		× ×
Canadian Dental Association		×						×		×										×			
Canadian Federation of Agriculture	×						×			× ×			×				×	×			×		
Trades and Labour Congress	×						×			○ ×		×						× ×			×		
Canadian Public Health Association	×					×			○	○ ×		×						×				×	
National Council of Women	×														×				×		×		
La Fédération des Femmes Canadiennes Françaises	×											×			×						×		
The Catholic Women's League	×											×			×						×		
Christian Scientists of Canada				×																			
Canadian Association of Optometrists		×																					×
Dominion Council of Chiropractors		×																					
Drugless Practitioners of Ontario		×																					×
Human Adjustment Institute	×																						×
Canadian Life Insurance Officers Association	×								○	○		×	×		×					×			×
Medical Liberty League			×																				
Catholic Hospitals of Canada		×								×		×			×				×				
Canadian Osteopathic Association		×																					
La Confédération des Travailleurs Catholiques du Canada		×																					×
Chiropodists of the Dominion		×																					
Victorian Order of Nurses	×																						×
Canadian Legion and Imperial Division, B.E.S.L.	×														×					×			
Canadian Congress of Labour	×																×	×					
Canadian Association of Social Workers	×					×		×	×		×	×			×		×	×		× ×	×		
State Hospital and Medical League	×											×			×		×	×		× ×	×		×

○ indicates qualified support or alternative proposals.

Resolutions of National Organizations

Many resolutions have been passed supporting Health Insurance, among them the following:

At the 31st Annual Meeting, Canadian Public Health Association, held in Toronto, June, 1942:

"Whereas there is urgent need in Canada for the more adequate provision of general medical, dental and nursing services,

"And experience in Great Britain and other countries has demonstrated the value of a system of compulsory contributory health insurance,

"And this association believes that in any health insurance program, adequate provision for preventive service is essential,

"Be it resolved that this association endorses the principle of national health insurance and urges that the provision of preventive services should form an essential part of this program."

At the General Council of the Canadian Medical Association, held in Ottawa, January 18-19, 1943:

"Whereas the objects of the Canadian Medical Association are:

1. The promotion of health and the prevention of disease;
2. The improvement of health services;
3. The performance of such other lawful things as are incidental or conducive to the welfare of the public;

"Whereas the Canadian Medical Association is keenly conscious of the desirability of providing adequate health services to all the people of Canada;

"Whereas the Canadian Medical Association has for many years been studying plans for the securing of such health services;

Therefore be it resolved that:

1. The Canadian Medical Association approves the adoption of the principle of health insurance;
2. The Canadian Medical Association favours a plan of health insurance which will secure the development and provision of the highest standard of health services, preventive and curative, if such plan be fair both to the insured and to all those rendering the services."

At the 47th meeting of the Dominion Council of Health, held in Ottawa, May 28-29, 1945:

"Whereas the Dominion Council of Health has expressed on numerous occasions its conviction that the provision of nation-wide health insurance is essential if adequate medical, dental and hospital care is to be available to all citizens in Canada, and

"Whereas the Council is gratified to learn from the Honourable the Minister of Health and Welfare that the introduction of health insurance is planned and that a policy of grants-in-aid to the provinces has been approved for the purpose of providing assistance needed in the supply of adequate local health services in the control of tuberculosis, venereal diseases, in the prevention and treatment of mental illness, in the training of essential public health personnel, and in the furtherance of medical research, particularly as related to public health; and

"Whereas these and other measures proposed give the Council great encouragement in their belief that the implementing of the proposals will advance greatly the health and welfare of all the people of Canada;

"Therefore be it resolved that the Dominion Council of Health, assembled at Ottawa on May 28-29, 1945, express to the Honourable the Minister of National Health and Welfare its appreciation of the broad public health program which he has presented to the Council with its objective of making the Canadian people the healthiest in the world."

Health Insurance in the Provinces

British Columbia—The Royal Commission appointed in 1919 recommended the adoption of Health Insurance and in March, 1928, as the result of a resolution, a Committee of the Legislative Assembly was appointed to enquire into the workings of systems of Health Insurance and Maternity Benefits. A Royal Commission on State Health Insurance and Maternity Benefits was appointed by the Provincial Government in April, 1929. This commission published two reports, which strongly favoured the adoption of Health Insurance. These Reports were the basis of a Health Insurance Bill which was drafted for presentation to the Legislature in 1934, but was withheld pending further study.

On March 31, 1936, the Legislature passed a Health Insurance Act which was to have gone into effect on January 1, 1937. This legislation applied to employees with a limited wage; it did not include indigents and the benefits were limited. All the machinery had been set up for the collection of the funds but, chiefly through the opposition of the medical profession, the legislation was suspended at the last minute. The opposition is stated to have been based on the failure of the Bill to cover indigents. It was felt that the financial burden of full population coverage was too great for the Province to assume, and that the Dominion should contribute to the scheme.

The Act was contributory and compulsory for all employees whose incomes were less than $1,800 per annum. Agricultural employees, Christian Scientists and members of certain industrial health care plans in existence prior to 1936 were exempt.

The plan included mandatory and permissive benefits, the mandatory being medical practitioner service, hospital care (for not more than ten weeks), necessary drugs and laboratory services; and the permissive, such additional medical services as the fund might permit. The insured had the choice of doctor.

The costs were to be borne by the employer and the employee, while the funds were to be centrally controlled and administered by a Commission.

Alberta—The Alberta Health Insurance Act of 1935 had its beginning in 1928 when a resolution was passed in the Legislature requesting the Government to examine existing schemes of health insurance. The Committee made a report in 1928 but nothing was done until 1932 when another committee was appointed for the purpose of

"considering and making recommendations . . . as to the best method of making adequate medical and health services available to all the people of Alberta; reporting as to the financial arrangements which will be required . . . to ensure the same".

In 1935 a Bill was introduced into the Legislature and passed. This legislation provided benefits such as general practitioner service, minor surgery, obstetrics, specialist services, hospital services and facilities, dental services, prescribed medicines and surgical appliances and preventive medical services for each unit. It was proposed to divide the Province into district units and to set up full preventive medical services in those areas. The Act called for full coverage of all persons resident in the province, the costs to be borne jointly by the employer, the wage earner and the Province. The total cost was estimated at $14.50 per capita per annum, and the funds were to be centrally controlled and administered by a Commission. The legislation has not been implemented.

In 1944 the Legislature passed a Maternity Hospital Act, to provide free maternity hospital care (up to 12 days) for women who have been residents of the Province for twelve consecutive months out of the twenty-four immediately preceding admission.

Saskatchewan—In Western Canada a local unit of government (a rural municipality) is an area consisting of from 200 to 300 square miles wherein the population varies from 1,200 to 3,000 persons. In 1919 many of the municipalities of Saskatchewan had, through public enterprise, inaugurated a scheme to provide medical care in their communities. The plan was commonly known as the "Municipal Doctor Plan" which means the engaging of a physician on a salary basis to give the residents of the municipality the benefit of medical care. By 1944 this type of medical care service was operating in 103 of the 343 municipalities in the Province.

The Municipal Doctor Plan may be operated under the provisions of two statutes:

(*a*) The Rural Municipality Act provides that the Council of Municipality may pass a by-law for the purpose of making:

(i) an annual or other grant or guarantee (not exceeding $1,500 per annum) to a legally qualified medical practitioner as an inducement to reside and practise his profession within the municipality,

(ii) or engaging the services of a legally qualified medical practitioner for the municipality at a maximum salary of $6,000 per annum, or if the municipality exceeded nine townships the salary might be increased not more than $600 for each additional township.

The financing may be provided out of a tax levy as part of the general levy or as a special levy to cover the cost of medical or surgical services.

(*b*) The Medical and Hospital Services Act provides that the Council of a Municipality may pass a by-law to make provision for medical or hospital services or both to residents of the municipality. All agreements made by doctors or municipalities are subject to the approval of a Health Services Board established under the Provincial Department of Health. The costs of the services are determined by an estimate of the amount required which determines the amount of the tax to be levied in respect of each resident of the municipality for the year. The amount of the tax is subject to the approval of the Health Services Board but the total in respect of any one family may not exceed $50 per annum.

The "Town Act" and the "Village Act" contain somewhat similar provisions regarding the employment of medical practitioners. On May 6, 1944, 46 rural municipalities provided both medical and hospital care for their people.

The agreement between the Council and medical practitioner usually requires that the latter act as medical officer for the community, that all indigent cases resident therein be given free medical care, as well as all resident rate-payers, their families and their dependents. From a public health point of view the system approaches the full-time health unit because the practitioner is required to give all the school children a medical examination once a year, in addition to the vaccination and immunization of pre-school and school children. Provision was made for the repeal of the by-law, but by 1944 not one municipality which had tried the municipal doctor system had voted to rescind it.

In 1943 a Social Service Committe was appointed by the Legislature to study health and welfare conditions in the Province. Various organizations appeared before the Committee and made representations. The Committee continued its studies, in particular the draft Dominion Health Insurance Bill, and in 1944 made a unanimous report to the House which was adopted and an Act respecting Health Insurance was passed. The Act enables the municipal doctor system to be used under Health Insurance. Many sections of the Act are identical with sections of the Dominion Draft Bill providing for contributory health insurance with universal coverage and making provision for similar benefits to those in the Dominion Legislation.

A "Health Services Act" which was passed at the 1944 fall session of the Legislature established a Health Services Planning Commission to work out in detail the successive steps through which health services will be implemented. The Commission is at present working on plans to divide the Province into health regions each of which will be under the direction of a full-time public health officer, who will be responsible for coordinating all the medical services in the region in addition to his regular public health duties. The Municipal Doctor Plan will, with some variations, be the basis of medical care in the rural areas.

It is the intention of the legislation to improve hospital and laboratory services and to establish travelling clinics. Within certain limits the residents will finance the services in each region under plans to be recommended by the Commission. The Provincial Government will give financial assistance where necessary. In the eight cities a system of health insurance is proposed. Subsequently in 1945 an amendment to the Health Services Act provided free health and hospital services for old age and blind pensioners and dependents, recipients of old age pensions from other Provinces who have resided in Saskatchewan at least 12 months immediately prior to the date of application for health services, women entitled to Mothers' Allowances under the Child Welfare Act, and children who are wards of the Province. It is understood that a complete system of free hospital care is being investigated.

Manitoba—Manitoba adopted the Municipal Doctor Plan in 1920 and by 1944 there were 21 municipalities which had passed the necessary by-law to bring the plan into operation. In 1942 the Provincial Department of Health, working in cooperation with the Manitoba Health Officers Association and the Manitoba Medical Association, drew up a "minimum standard of health services for part-time health officers". This was adopted by the Union of Rural Municipalities which urged that the individual municipalities be contacted and encouraged to adopt the standards. About 27 per cent of the municipalities of rural Manitoba were meeting these standards in 1944.

The Legislature of Manitoba on April 7, 1945, passed an Act entitled "The Health Services Act" which was designed to provide for the improvement of the health of the citizens of the Province. In the words of the Hon. Ivan Schultz, Minister of Health and Public Welfare, the Manitoba Health Plan envisaged by the Legislation, is based on the principle that the fundamental responsibility of a health service should be to prevent disease. To carry this principle into effect, full-time health units will be set up covering the entire Province in order to direct and supervise preventive services, to ensure effective coordination of health programmes, and to provide uniform standards. The service will be under Provincial control and direction with the Province sharing the operational costs with the municipalities.

The Minister points out that some of the advantages of the Health Unit Plan are:

(1) It provides the proper basis on which to build a scientific health programme in the Province and provides a logical and natural foundation for any health scheme.

(2) It completely relieves the municipalities of all provision for and payment of health officers.

(3) It also relieves the municipalities of certain responsibilities that are optional with them now, including immunization programmes and periodic examination of school children.

(4) It offers rural medical practitioners consultative and co-operative services in regard to all forms of preventive medicine, but does not in any way interfere with their practice or infringe upon their rights.

(5) The health unit plan offers the most effective approach in solving our present problems in reference to maternal mortality, tuberculosis, and venereal disease.

The estimated cost of this is $1 per person per year. Two-thirds of this cost (67 cents per person) will be assumed by the Province and the balance of one-third (33 cents per person) by the municipality.

The actual net cost to the Province after certain deductions, is estimated at $265,300 and to the municipalities (exclusive of Winnipeg) $71,000. The legislation makes provision for the setting up and control of the health units and

(1) the municipalities cannot be compelled to enter the plan

(2) there is the local advisory board for each health unit; the majority of the members are appointed by the municipalities and the minority by the Minister.

The second principle of the plan is the provision of diagnostic facilities, so that any medical practitioner may have readily available diagnostic facilities both of the X-ray and the laboratory type. It is suggested such equipment should be compulsory for all hospitals and that any necessary diagnostic test should be provided free, other than a small service charge. The Minister summarized the advantages of providing diagnostic services as follows:

(1) It will eventually put at the disposal of every medical practitioner in Manitoba most of the scientific equipment necessary for proper diagnosis and modern medical treatment.

(2) It is an inducement for the young and ambitious medical practitioner to practise in rural areas.

(3) It brings close to all patients throughout the province most of the advantages of modern diagnosis and treatment, and enables them to remain at home when otherwise they might have to leave home.

(4) It lifts the whole standard of rural practice, by improving the means of services.

(5) The fact that the services are free, subject to a small service charge, means every person, irrespective of means, will have the advantage of modern diagnostic equipment and modern tests.

(6) By placing this equipment in rural hospitals it helps to raise their standing and lowers their costs.

(7) The plan would eventually give to the urban citizen of moderate means—the great middle class—a relief that is very definitely needed and, at the same time one that will be appreciated by the general practitioner in the large urban centre.

The actual cost for the equipment required to supply diagnostic service is estimated at a total of $300,000, while the operational costs in the rural areas is estimated at 50 cents per person divided on the basis of 33 cents to the Province and 17 cents to the municipality.

The third basic principle is the provision for curative medicine. The Minister stated that this involves:

(1) The services of a general medical practitioner should be readily available to all people of our Province when they are ill.

(2) In view of the disabling effects of such illness, the cost should be provided for in advance.

(3) Imposing a municipal tax distributes the burden most equitably.

(4) Payment for provision of such services should be a matter of arrangement with the medical practitioner and may be by way of salary, by way of capitation fee, or by way of payment for services rendered, or by any combination of these.

(5) When any municipality enters fully and cooperatively into the disease prevention programme, i.e., provides for health units and diagnostic services, the Province should make a contribution to the cost of curative medicine in such municipality.

It is estimated that in rural Manitoba this type of service can be provided at a cost of $3 per person per year. To a municipality complying with the conditions the Province undertakes to pay one-sixth of the medical care service on the basis of $3 per capita.

The Minister stated that the fourth basic principle is the provision of necessary hospital accommodation and control sufficient and adequate to be made available to all the people in the Province. The plan proposes the division of the Province into hospital areas, and the setting up of a hospital council for the supervision of the hospitals (including definite standards of building, equipment, accounting and service). The capital cost of building and equipping hospitals would be borne by the local areas. It is the intention of the Province to increase per diem grants to hospitals.

General provisions of the Act are that the plan will be administered by the Department of Health with an Advisory Commission of 11 members, one of whom will be the Deputy Minister of Health and Public Welfare and the other ten members appointed by the Lieutenant Governor in Council representing the Canadian Medical Association (3), the Union of Manitoba Municipalities (3), Board of Governors of the University of Manitoba (1) from the Faculty of Medicine, and to be nominated by the Minister (3). The Act provides for a new type of taxation which the municipalities can levy in the form of a personal health levy. This is designed to relieve the burden on the land and cannot be levied without consent of the rate-payers.

The Minister stated that the plan is designed with a view to enlargement and capable of being integrated into any federal national health insurance plan. It is designed to encourage and develop preventive medicine. It is capable of gradual introduction. It recognizes the fact that the greatest immediate need for improvement in health services is in the rural areas. It aims to provide those services consistent with reasonable cost.

Ontario—With the appointment of the Committee by the Ontario Medical Association in 1920, the question of health insurance was first brought to public attention, but it was not until 1931 that the Committee submitted a report which reviewed the question of health insurance. A questionnaire was then circulated among the physicians of the province requesting an expression of opinion on the subject and it is reported that the majority supported the principle of health insurance for Ontario.

In February, 1938, the Ontario executive of the Trades and Labour Congress urged the enactment of legislation to ensure to all citizens of the Province, irrespective of their ability to pay, the full benefits of curative and preventive medicines. The joint legislative committee of Railway Transportation Brotherhoods recommended that favourable consideration be given to health insurance.

The Council of the Ontario Medical Association in May, 1938, rejected a committee report urging compulsory health insurance. This report urged that

> "all persons unable to provide adequate medical care for themselves should be compelled to belong to the insurance scheme. In other words, it should include those of the low income group and the indigents".

A considerable number of industries in the province provide medical care in part or in whole to their employees, but there is no uniformity in the type of services provided nor in the methods of financing the costs of the schemes. For instance, the employees of the Hollinger Consolidated Gold Mines Ltd., at Timmins have an association organized to spread the cost of medical care. This scheme was drafted by the local medical society and came into effect in June, 1937. The plan was favoured by over 90 per cent of the employees and with their dependents covers a normal population of around 9,500.

During recent years there has been a considerable advancement in this province of the group medicine system, by which subscribers through the payment of a monthly sum are eligible for medical and hospital care. One of the major ventures in this type of medical care in Canada is the Associated Medical Services Incorporated with head offices in Toronto. This organization was established on June 1, 1937. The plan provides generally for the participation of any legally qualified medical practitioner and any person under 55 years of age can apply for membership, choosing his own doctor, and if accepted, qualifies to receive certain benefits covering medical care, hospital care, medicines and (where required) specialized treatment. Membership costs $2 per month, with the following rates for dependents: $1.75 per month for the first; $1.50 for the second; $1.25 for the third and $1 per month for each additional dependent. The schedule of fees paid to physicians is 100 per cent of the minimum schedule of fees of the Ontario Medical Association. The Association claims it has demonstrated during the years of operation that

> "it is possible to secure the co-operation of the medical profession, the government and the public in budgeting the cost of medical care".

In 1944 the provincial government passed an Act to provide for the improvement of the health of the citizens of the Province. The legislation was known as "The Municipal Health Services Act" and according to the Minister of Health was drawn up on the principle that the municipality should have a certain amount of choice of the medical care service it wished to receive. The Bill was very flexible, it left to regulation many matters of a contentious nature and in view of the difficulty in estimating costs the stipulation in the bill was that whatever was done must be on a contributory basis. In those areas which could do little or nothing grants-in-aid are to be provided in order to set up pools for the payment of personnel. Where possible, the method of payment was to be on a fee for service basis, satisfactory to the Ontario Medical Association.

In explaining the plan to the Conference of Ministers on Health Insurance in May, 1944, the Honourable Dr. Vivian stated that the Government had:

(*a*) insisted on collective bargaining; and

(*b*) left to the municipality the choice of method by which the money was to be raised;

and that no plan could be put into effect without the approval of the Department of Health.

The Minister said

> "we want the municipalities to tell us what they want, the amount of service they wish to receive, and the type of service they want".

In some areas they might possibly like to receive some service on the insurance basis but he felt that in the southern part of the Province the people were more interested in "bits and pieces" than an overall plan. The composition of the Municipal Health Services Board had been left out of the Bill so that it might come under

the Department of Health and be strictly a technical board composed only of medical and associated professions or it might become a Sickness Insurance Commission. The Minister stated that the government had been in consultation with the Ontario Medical Association, Nurses Association, Federation of Agriculture, Organized Labour, Canadian Manufacturers Association and various other groups who were intimately concerned, and he believed a satisfactory program could be developed.

Quebec—The Quebec Medical Association appointed a committee for the study of health insurance which in its report to the annual meeting in September, 1932, advocated a system of compulsory health insurance somewhat along the lines of the French system.

In 1933 the Quebec Social Insurance Commission in a report to the Minister of Labour recommended "that recourse be had to the subsidized optional regime before the obligatory system" because it was easy to apply it to the existant mutual benefit insurance societies.

In 1943 the Legislative Assembly passed an "Act to constitute a Health Insurance Commission". The Commission was directed to study the whole problem of health insurance and to suggest a plan to meet the situation but no report was ever published and the legislation was repealed in 1945.

Maritime Provinces—No action has been taken by the Maritime Provinces respecting health insurance, yet in Nova Scotia is to be found the oldest scheme of health insurance on the continent. The employees of the Dominion Steel and Coal Company in Cape Breton (Glace Bay district) have a system whereby the workers and their dependents receive medical care and cash sickness benefits. All together the normal population covered is between 30,000 and 35,000 and each employee (employees number between 6,000 and 7,000) pays 95 cents per week regardless of the amount of his wages. This is deducted from wages by the company and paid into a fund from which the medical bills and sick benefits are paid.

COSTS OF MEDICAL CARE IN CANADA

According to the Advisory Committee on Health Insurance the estimated Canadian rate of sickness is 7·65 days per person per year, and on this basis the total number of sickness days in the Canadian population during 1938 was 88 million. Assuming that each day's illness costs $3 the total cost of illness for that year would have been $264 million. To the total cost of illness should be added the amount that is lost in wages and other income and on the basis of the population distribution of the Census of 1931, this was estimated, in 1938, at $84 million. Because of the increased working population the wage loss is greater to-day.

The cost of hospitalization for illness in Canada is great. In 1943 the total expenditure for hospitalization was $86 million distributed as follows: General Public (Acute Disease) Hospitals, $59 million; Tuberculosis Sanatoria, $8 million and Mental Institutions, $18 million.

In estimating the distribution of the cost of benefits under the Dominion Draft Health Insurance Bill, the Advisory Committee used the total cost figure of $242,114,000 which was based on a study by the Dominion Bureau of Statistics and an estimated population of 11,209,000 in 1938. This set the per capita cost at $21.60 which has been the figure used for illustration purposes in most of the Dominion's proposals.

The distribution of the cost of complete health insurance on the basis of this per capita cost figure of $21.60 by service benefits using the 1941 Census of population would be as follows:

ESTIMATED DISTRIBUTION OF COST OF HEALTH INSURANCE BENEFITS (1)

Population: 11,489,713 Census of 1941

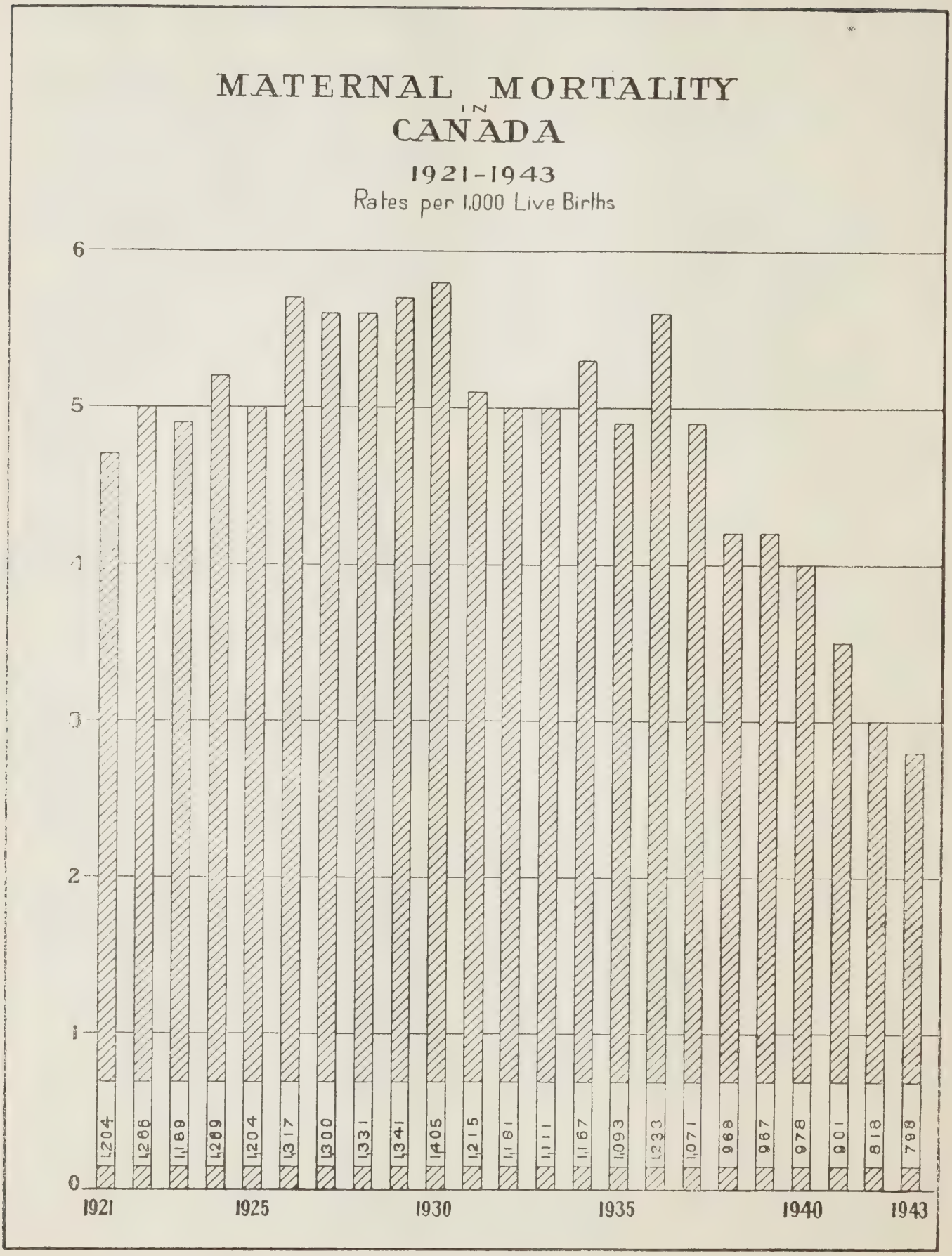
Service	Percent of Total Cost	Cost of Service	
		Per Capita	Total
		$	$000
1. General Practitioner Service	27·78	6·00	68,938
2. Hospital Care	16·67	3·60	41,363
3. Visiting Nursing Service	2·78	0·60	6,894
4. Other Medical Services (Consultant, Specialist and Surgeon)	16·20	3·50	40,214
5. Other Nursing Services (including private duty)	5·32	1·15	13,213
6. Dental Care	16·67	3·60	41,363
7. Pharmaceutical (drugs, serums and surgical appliances)	11·80	2·55	29,299
8. Laboratory Services (blood tests, X-ray, etc.)	2·78	0·60	6,894
Complete Health Insurance Services	100·00	21·60	248,178

SOURCES:

Minutes of Proceedings and Evidence, the Special Committee on Social Security, House of Commons.
"Health Insurance" by the Honourable Ian Mackenzie, Minister of Pensions and National Health.
Report of the Advisory Committee on Health Insurance.
Report Dominion-Provincial Conference on Health Insurance, May 10-12, 1944.
Provincial Departments of Health.
The Manitoba Health Plan.
Public Affairs.
Study of Distribution of Medical Care and Public Health Services in Canada.

(1) Exclusive of the cost of Administration.

CHART 1.



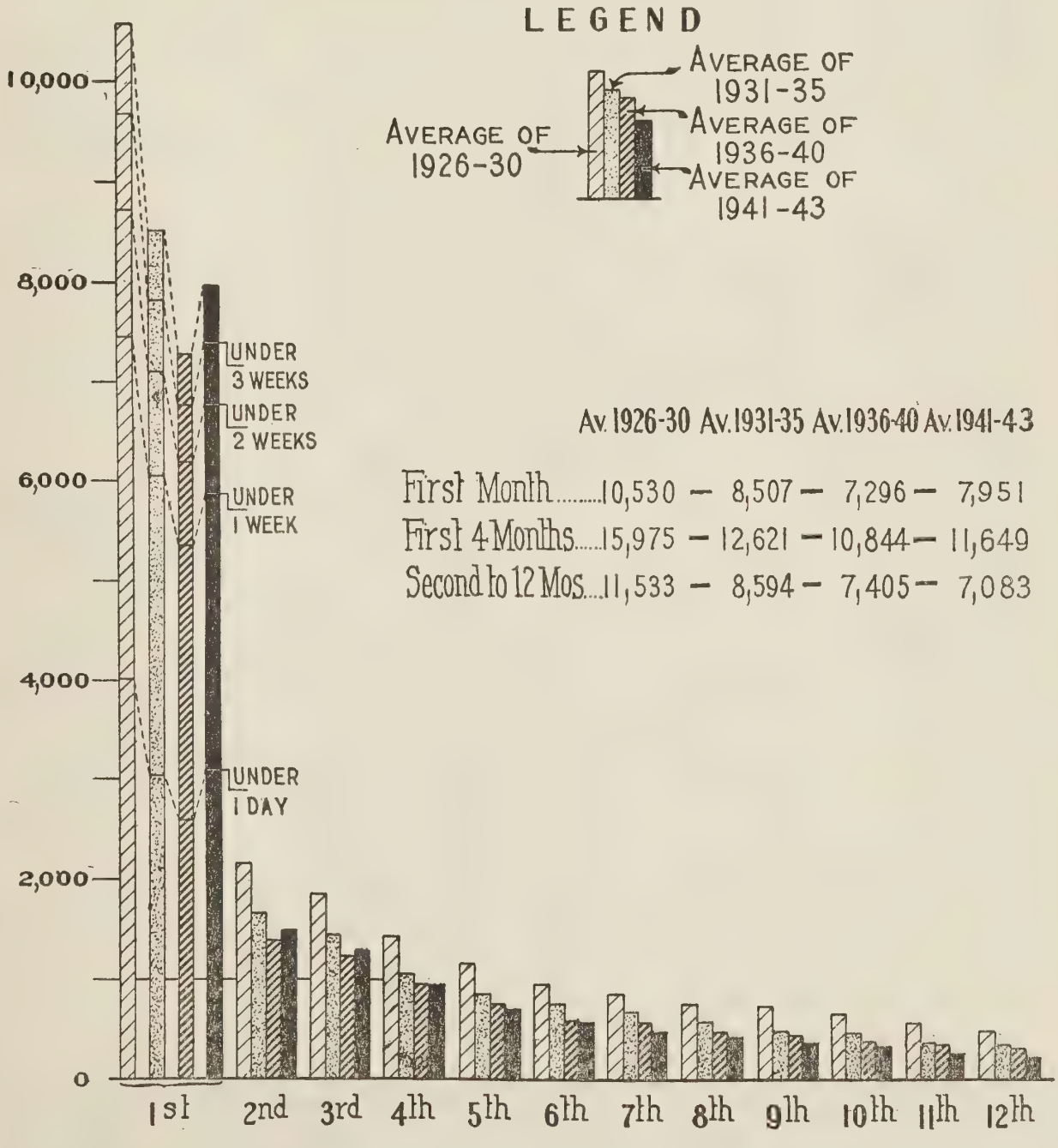
NOTE: Figures shown in the bars of the chart indicate the number of mothers lost in childbirth each year.

CHART 2.

INFANT MORTALITY IN CANADA

FIVE-YEAR AVERAGES

Deaths at each age period



	Av. 1926-30	Av. 1931-35	Av. 1936-40	Av. 1941-43
First Month	10,530	8,507	7,296	7,951
First 4 Months	15,975	12,621	10,844	11,649
Second to 12 Mos.	11,533	8,594	7,405	7,083

CHART 3.

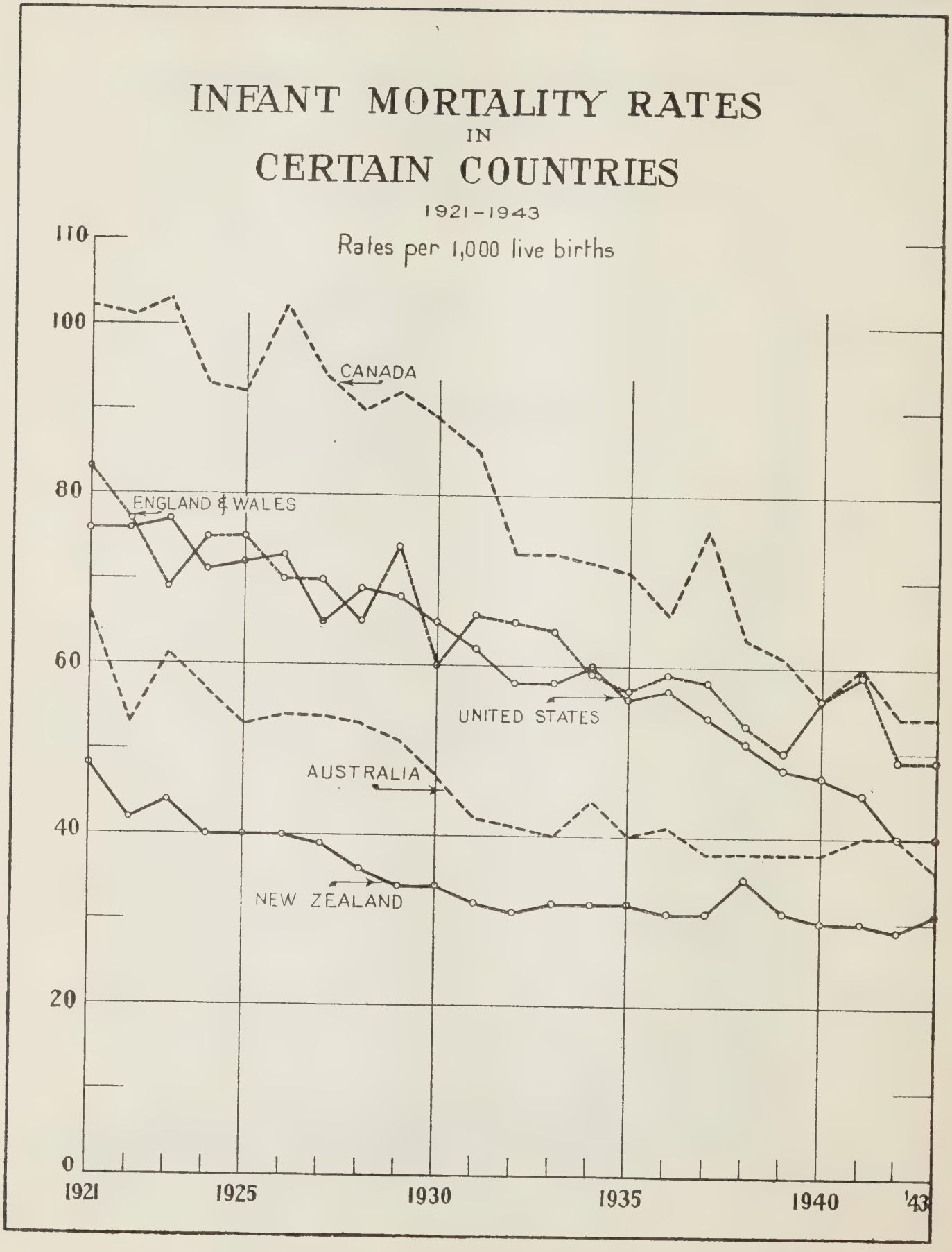

INFANT MORTALITY RATES
IN
CERTAIN COUNTRIES
1921-1943
Rates per 1,000 live births
110
100
80
60
40
20
0
CANADA
ENGLAND & WALES
UNITED STATES
AUSTRALIA
NEW ZEALAND
1921
1925
1930
1935
1940
'43

CHART 4

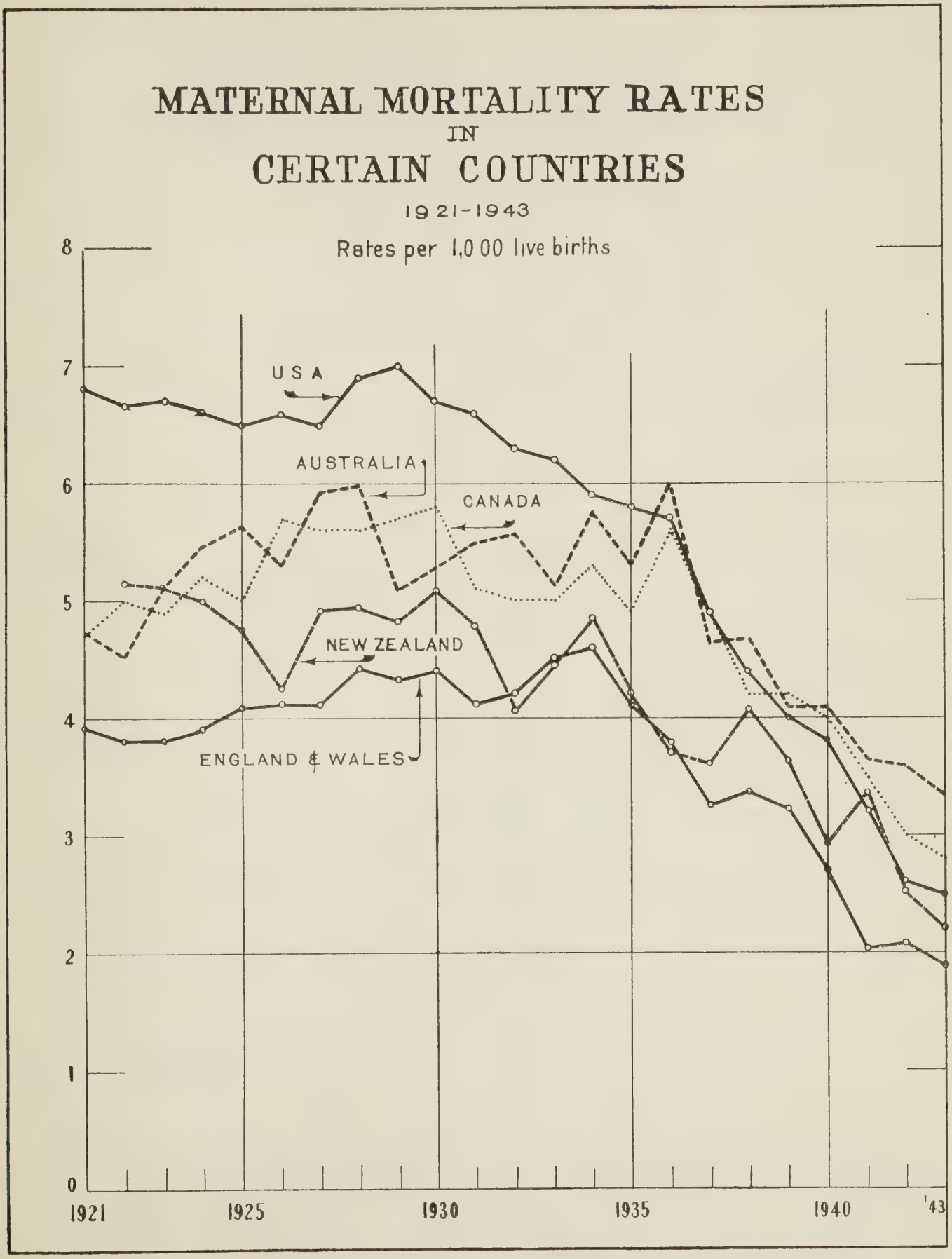

MATERNAL MORTALITY RATES
IN
CERTAIN COUNTRIES
1921-1943
Rates per 1,000 live births
8
7
6
5
4
3
2
1
0
USA
AUSTRALIA
CANADA
NEW ZEALAND
ENGLAND & WALES
1921
1925
1930
1935
1940
'43

CHART 5.

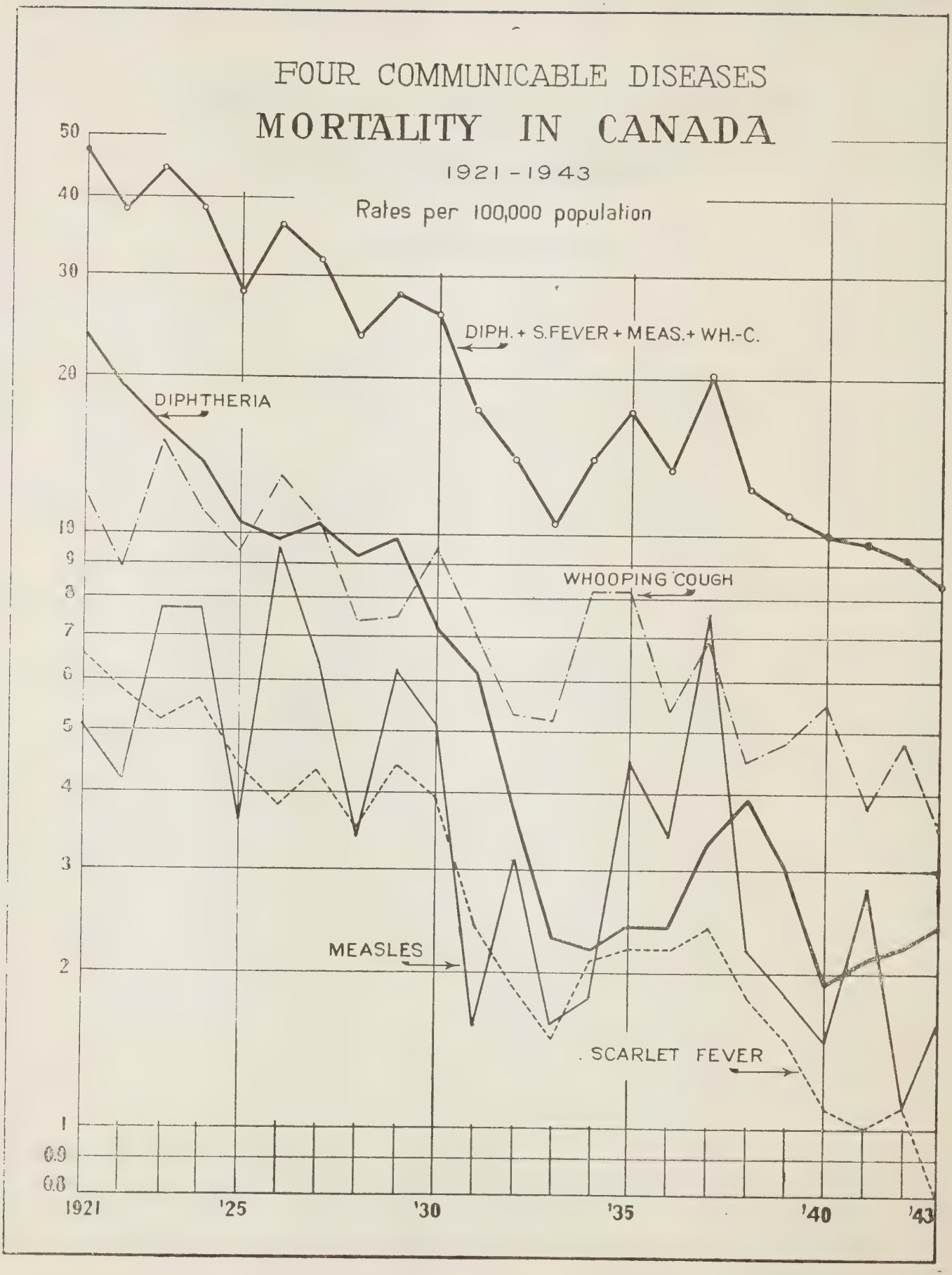
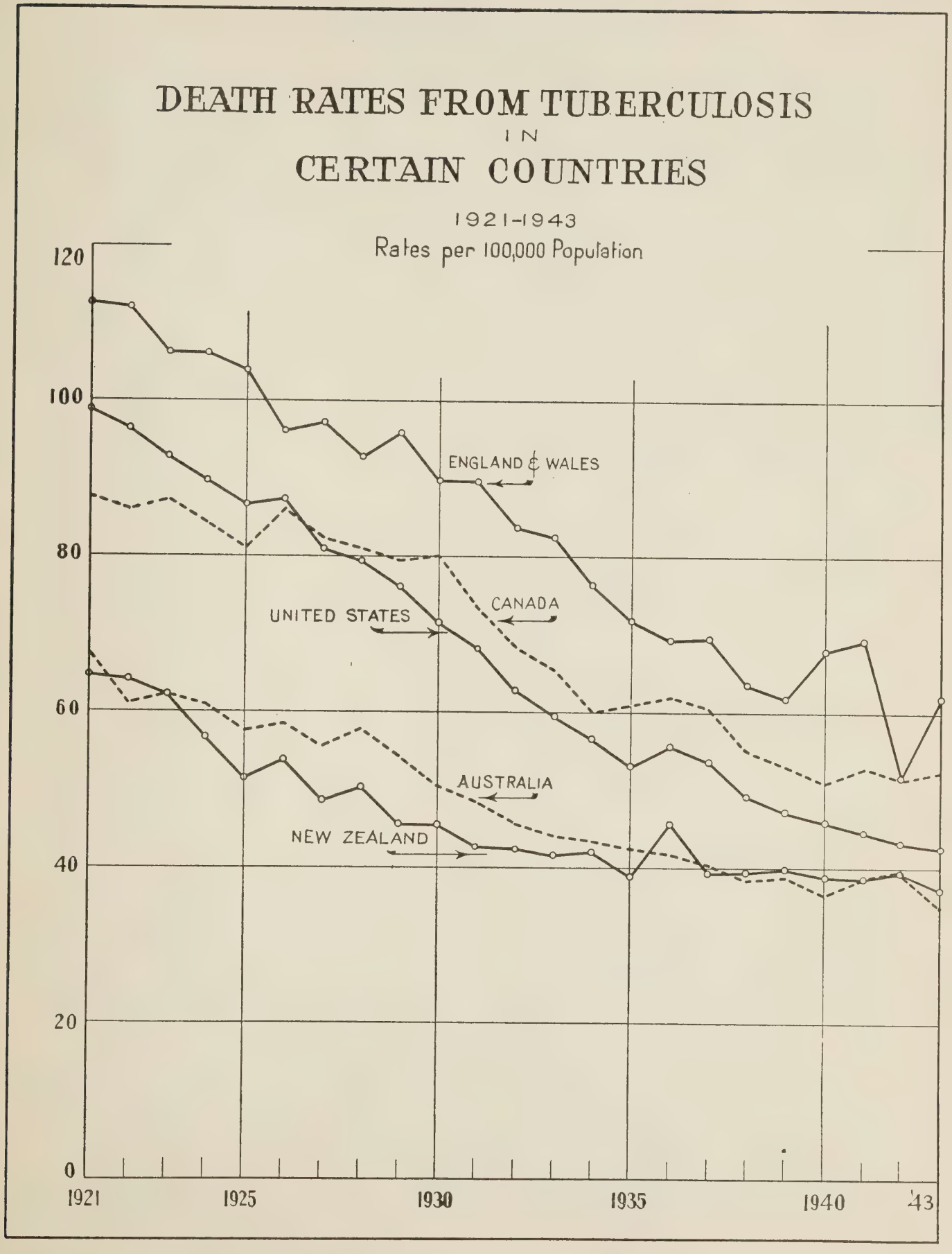

FOUR COMMUNICABLE DISEASES
MORTALITY IN CANADA
1921 - 1943
Rates per 100,000 population
DIPH. + S.FEVER + MEAS. + WH.-C.
DIPHTHERIA
WHOOPING COUGH
MEASLES
SCARLET FEVER
50
40
30
20
10
9
8
7
6
5
4
3
2
1
0.9
0.8
1921
'25
'30
'35
'40
'43

CHART 6.


DEATH RATES FROM TUBERCULOSIS
IN
CERTAIN COUNTRIES
1921-1943
Rates per 100,000 Population
120
100
80
60
40
20
0
ENGLAND & WALES
CANADA
UNITED STATES
AUSTRALIA
NEW ZEALAND
1921
1925
1930
1935
1940
'43

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